



# **STIC Search Report**

## **EIC 1700**

**STIC Database Tracking Number: 205989**

**TO: Geraldine Letscher**  
**Location: REM 9D55**  
**Art Unit : 1752**  
**October 31, 2006**

**Case Serial Number: 10/549553**

**From: Ross Shipe**  
**Location: EIC 1700**  
**REMSSEN 4B31**  
**Phone: 571/272-6018**  
**Ross.Shipe@uspto.gov**

### **Search Notes**

Examiner Letscher:

Please review the attached search results.

I included the applicant's work with the search results. The applicant's work does not index formula A.

If you have any questions or if you would like to refine the search query, please feel free to contact me at any time.

Thanks you for using EIC 1700 search services!

Ross Shipe (ASRC)  
Technical Information Specialist



Access DB# 205989**SEARCH REQUEST FORM**

Scientific and Technical Information Center

Requester's Full Name: Viscetti Examiner #: \_\_\_\_\_ Date: 10/31/06  
Art Unit: \_\_\_\_\_ Phone Number 30 \_\_\_\_\_ Serial Number: 10/547553  
Mail Box and Bldg/Room Location: \_\_\_\_\_ Results Format Preferred (circle): PAPER DISK E-MAIL

**If more than one search is submitted, please prioritize searches in order of need.**

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Color material and Silver Halide

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

\*\*\*\*\*

**STAFF USE ONLY**

	Type of Search	Vendors and cost where applicable
Searcher: <u>RS</u>	NA Sequence (#) _____	STN <input checked="" type="checkbox"/> _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>1</u>	Questel/Orbit _____
Date Searcher Picked Up: <u>10/31/06</u>	Bibliographic _____	Dr.Link _____
Date Completed: <u>10/31/06</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>30</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>133</u>	Other _____	Other (specify) _____

Banks, Kendra

205989

**From:** GERALDINA VISCONTI [geraldina.visconti@uspto.gov]  
**Sent:** Sunday, October 29, 2006 6:06 PM  
**To:** STIC-EIC1700  
**Subject:** Database Search Request, Serial Number: 10/549553

Requester:  
GERALDINA VISCONTI (P/1752)

Art Unit:  
GROUP ART UNIT 1752

Employee Number:  
70775

Office Location:  
REM 09D55

Phone Number:  
(571)272-1334

Mailbox Number:  
70775

Case serial number:  
10/549553  
Class / Subclass(es):  
430/502,503,546,551,556,557,558,543

Earliest Priority Filing Date:  
03-25-03

Format preferred for results:  
Paper

Search Topic Information:  
Please search for the compound represented by Formula (A)  
Special Instructions and Other Comments:

SCIENTIFIC REFERENCE BR  
Sci & Tech Inf. Ctr.

OCT 30 RECD

Pat. & T.M. Office



# STIC Search Results Feedback Form

**EIC17000**

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader  
571/272-2505 REMSEN 4B28

## Voluntary Results Feedback Form

- I am an examiner in Workgroup:  Example: 1713  
➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

=> d his full

(FILE 'HOME' ENTERED AT 08:37:53 ON 31 OCT 2006)

FILE 'HCAPLUS' ENTERED AT 08:38:10 ON 31 OCT 2006

E US20060177779/PN

L1 1 SEA ABB=ON PLU=ON US2006177779/PN  
SEL RN

FILE 'REGISTRY' ENTERED AT 08:38:30 ON 31 OCT 2006

L2 5 SEA ABB=ON PLU=ON (209536-40-3/BI OR 479355-02-7/BI OR  
605657-00-9/BI OR 605657-31-6/BI OR 605657-32-7/BI)

FILE 'HCAPLUS' ENTERED AT 08:38:39 ON 31 OCT 2006

L3 1 SEA ABB=ON PLU=ON L1 AND L2

FILE 'REGISTRY' ENTERED AT 08:43:04 ON 31 OCT 2006

L4 STR

L6 SCR 2043

L7 50 SEA SSS SAM L4 NOT L6

L8 169506 SEA SSS FUL L4 NOT L6

SAV L8 TEMP VIS553/A

L9 0 SEA ABB=ON PLU=ON L2 AND L8

FILE 'HCAPLUS' ENTERED AT 09:10:59 ON 31 OCT 2006

L10 95309 SEA ABB=ON PLU=ON L8

L11 98 SEA ABB=ON PLU=ON L10 (L) (AGX OR AGI OR AGBR OR AGF  
OR AGCL OR (AG OR SILVER) (W) (HALIDE# OR IODIDE# OR  
BROMIDE# OR FLUORIDE# OR CHLORIDE#))

L12 87 SEA ABB=ON PLU=ON L10 (L) (AGX OR AGI OR AGBR OR AGF  
OR AGCL OR (AG OR SILVER) (W) (HALIDE# OR IODIDE# OR  
BROMIDE# OR FLUORIDE# OR CHLORIDE#)) (L) PHOTO?

L13 2 SEA ABB=ON PLU=ON L12 AND (REFLECT? OR TRANSPAR?)

L14 15 SEA ABB=ON PLU=ON L12 (L) (LAYER? OR SHEET? OR FILM?)

L15 21 SEA ABB=ON PLU=ON L10 (L) (AGX OR AGI OR AGBR OR AGF  
OR AGCL OR (AG OR SILVER) (W) (HALIDE# OR IODIDE# OR  
BROMIDE# OR FLUORIDE# OR CHLORIDE#)) (L) EMULSION?

L16 4 SEA ABB=ON PLU=ON L10 (L) (AGX OR AGI OR AGBR OR AGF  
OR AGCL OR (AG OR SILVER) (W) (HALIDE# OR IODIDE# OR  
BROMIDE# OR FLUORIDE# OR CHLORIDE#)) (L) EMULSION? (L)  
(LAYER? OR SHEET? OR FILM?)

L17 15 SEA ABB=ON PLU=ON L10 (L) (AGX OR AGI OR AGBR OR AGF  
OR AGCL OR (AG OR SILVER) (W) (HALIDE# OR IODIDE# OR  
BROMIDE# OR FLUORIDE# OR CHLORIDE#)) (L) EMULSION? AND  
(LAYER? OR SHEET? OR FILM?)

L18 18 SEA ABB=ON PLU=ON L10 (L) (AGX OR AGI OR AGBR OR AGF  
OR AGCL OR (AG OR SILVER) (W) (HALIDE# OR IODIDE# OR  
BROMIDE# OR FLUORIDE# OR CHLORIDE#)) (L) EMULSION? (L)  
PHOTO?

L19 34 SEA ABB=ON PLU=ON L3 OR L13 OR L14 OR L15 OR L16 OR  
L17 OR L18

L20 32 SEA ABB=ON PLU=ON L19 AND (1840-2003)/PRY,PY,AY

=> file reg

FILE 'REGISTRY' ENTERED AT 10:49:06 ON 31 OCT 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

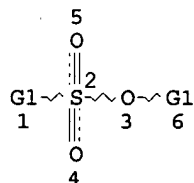
COPYRIGHT (C) 2006 American Chemical Society (ACS)

=> d l20 que stat

L1 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2006177779/PN

L2 5 SEA FILE=REGISTRY ABB=ON PLU=ON (209536-40-3/BI OR  
479355-02-7/BI OR 605657-00-9/BI OR 605657-31-6/BI OR  
605657-32-7/BI)

L3 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L1 AND L2  
 L4 STR



VAR G1=AK/CY  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L6 SCR 2043  
 L8 169506 SEA FILE=REGISTRY SSS FUL L4 NOT L6  
 L10 95309 SEA FILE=HCAPLUS ABB=ON PLU=ON L8  
 L12 87 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 (L) (AGX OR AGI OR  
 AGBR OR AGF OR AGCL OR (AG OR SILVER) (W) (HALIDE# OR  
 IODIDE# OR BROMIDE# OR FLUORIDE# OR CHLORIDE#)) (L)  
 PHOTO?  
 L13 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L12 AND (REFLECT? OR  
 TRANSPAR?)  
 L14 15 SEA FILE=HCAPLUS ABB=ON PLU=ON L12 (L) (LAYER? OR  
 SHEET? OR FILM?)  
 L15 21 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 (L) (AGX OR AGI OR  
 AGBR OR AGF OR AGCL OR (AG OR SILVER) (W) (HALIDE# OR  
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 L16 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 (L) (AGX OR AGI OR  
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 IODIDE# OR BROMIDE# OR FLUORIDE# OR CHLORIDE#)) (L)  
 EMULSION? (L) (LAYER? OR SHEET? OR FILM?)  
 L17 15 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 (L) (AGX OR AGI OR  
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 IODIDE# OR BROMIDE# OR FLUORIDE# OR CHLORIDE#)) (L)  
 EMULSION? AND (LAYER? OR SHEET? OR FILM?)  
 L18 18 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 (L) (AGX OR AGI OR  
 AGBR OR AGF OR AGCL OR (AG OR SILVER) (W) (HALIDE# OR  
 IODIDE# OR BROMIDE# OR FLUORIDE# OR CHLORIDE#)) (L)  
 EMULSION? (L) PHOTO?  
 L19 34 SEA FILE=HCAPLUS ABB=ON PLU=ON L3 OR L13 OR L14 OR L15  
 OR L16 OR L17 OR L18  
 L20 32 SEA FILE=HCAPLUS ABB=ON PLU=ON L19 AND (1840-2003)/PRY,  
 PY,AY

=> file hcaplus  
 FILE 'HCAPLUS' ENTERED AT 10:49:17 ON 31 OCT 2006  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=> d l20 1-32 ibib abs hitstr hitind

L20 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2004:447252 HCAPLUS  
 DOCUMENT NUMBER: 141:14414

TITLE: Heat-developable photographic material containing bisphenol derivative and stabilizer and image formation

INVENTOR(S): Kimura, Sok Man Ho

PATENT ASSIGNEE(S): Konica Minolta Holdings Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 50 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

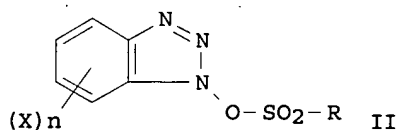
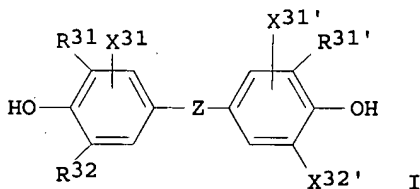
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004157299	A2	20040603	JP 2002-322326	20021106

PRIORITY APPLN. INFO.: JP 2002-322326

20021106

OTHER SOURCE(S): MARPAT 141:14414

GI



AB In the material comprising an emulsion contg. light insensitive Ag salt particles and light sensitive Ag halide grains, a reducing agent, a binder and a crosslinking agent, the Ag halide grains are chem. sensitized and contg.  $\geq 1$  bisphenol deriv. I (Z = S, CR33R33'; R33, R33' = H, substituent; R31, R32, R31', R32' = substituent; X31, X31' = H, substituent), and  $\geq 1$  stabilizer selected from II (X = substituent; R = alkyl, alkenyl, alkynyl, aryl, heterocycle; n = 0-4) and ArR41SM (Ar = arom. group, heterocycle, cycloalkane; R41 = S, O, Se, Te, NH, CO, P, alkylene, or linking group connected with  $\geq 2$  of them). Images are formed by exposing the material to 600-900 nm red to IR laser light, using a laser scanner with longitudinal multimode laser beam, where an angle between exposed surface and laser beam is not vertical, and then thermally developing at 80-200° for 5-15 s. The material shows high sensitivity, low fog, high Dmax, and improved reciprocity law failure, Ag tone, and raw stock and image storage stability.

IT 54769-22-1 54769-49-2 54769-58-3  
54769-59-4 65320-05-0 74528-24-8  
457063-57-9 695154-14-4 695154-15-5  
695154-16-6  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

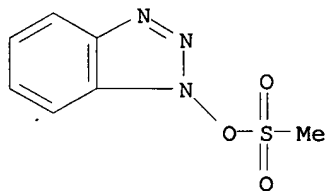
(stabilizer; heat-developable photog. film

contg. silver halide emulsion

contg. bisphenol compd. sensitizer and stabilizer)

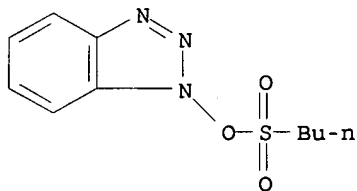
RN 54769-22-1 HCAPLUS

CN 1H-Benzotriazole, 1-[(methylsulfonyl)oxy]- (9CI) (CA INDEX NAME)



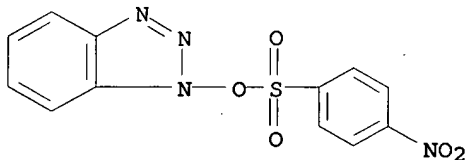
RN 54769-49-2 HCAPLUS

CN 1H-Benzotriazole, 1-[(butylsulfonyl)oxy]- (9CI) (CA INDEX NAME)



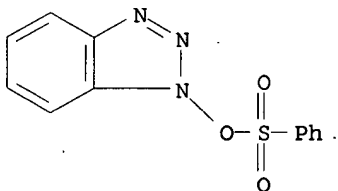
RN 54769-58-3 HCAPLUS

CN 1H-Benzotriazole, 1-[[[4-nitrophenyl)sulfonyl]oxy]- (9CI) (CA INDEX NAME)



RN 54769-59-4 HCAPLUS

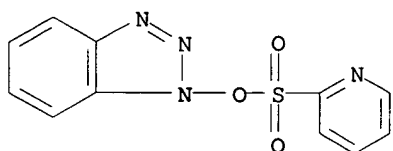
CN 1H-Benzotriazole, 1-[(phenylsulfonyl)oxy]- (9CI) (CA INDEX NAME)



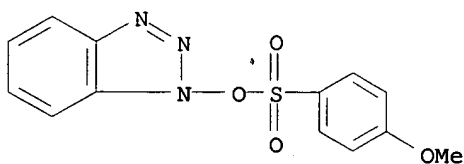
RN 65320-05-0 HCAPLUS

CN 1H-Benzotriazole, 1-[(2-pyridinylsulfonyl)oxy]- (9CI) (CA INDEX NAME)

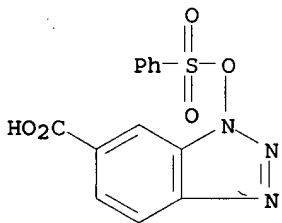




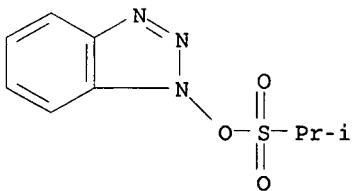
RN 74528-24-8 HCAPLUS  
 CN 1H-Benzotriazole, 1-[[4-methoxyphenyl]sulfonyl]oxy]- (9CI) (CA INDEX NAME)



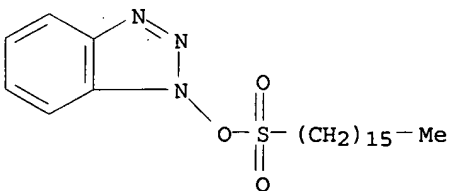
RN 457063-57-9 HCAPLUS  
 CN 1H-Benzotriazole-6-carboxylic acid, 1-[(phenylsulfonyl)oxy]- (9CI) (CA INDEX NAME)



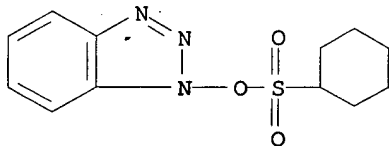
RN 695154-14-4 HCAPLUS  
 CN 1H-Benzotriazole, 1-[[1-methylethyl]sulfonyl]oxy]- (9CI) (CA INDEX NAME)



RN 695154-15-5 HCAPLUS  
 CN 1H-Benzotriazole, 1-[(hexadecylsulfonyl)oxy]- (9CI) (CA INDEX NAME)



RN 695154-16-6 HCAPLUS  
 CN 1H-Benzotriazole, 1-[(cyclohexylsulfonyl)oxy]- (9CI) (CA INDEX NAME)



IC ICM G03C001-498  
 ICS G03C005-08  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST heat developable photog **film** phenolic compd chem  
 sensitizer; benzotriazole compd stabilizer photog emulsion; photog emulsion stabilizer mercapto compd  
 IT Photographic sensitizers  
 (chem.; heat-developable photog. **film** contg. silver halide emulsion contg. bisphenol compd. chem. sensitizer and stabilizer)  
 IT Photographic emulsions  
 Photographic stabilizers  
 (heat-developable photog. **film** contg. silver halide emulsion contg. bisphenol compd. sensitizer and stabilizer)  
 IT Photographic **films**  
 (heat-developable; heat-developable photog. **film** contg. silver halide emulsion contg. bisphenol compd. sensitizer and stabilizer)  
 IT 15080-52-1 66101-97-1 87817-35-4  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (chem. sensitizer; heat-developable photog. **film** contg. silver halide emulsion contg. bisphenol compd. sensitizer and stabilizer)  
 IT 118-82-1, 3,3',5,5'-Tetra-tert-butyl-4,4'-dihydroxydiphenylmethane  
 13676-82-9 19072-87-8 19139-49-2 24742-46-9 695154-13-3  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (chem. sensitizer; heat-developable photog. **film** contg. silver halide emulsion contg. bisphenol compd. sensitizer and stabilizer)  
 IT 136-93-6 452083-15-7  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (heat-developable photog. **film** contg. silver halide emulsion contg. bisphenol compd. sensitizer and stabilizer)  
 IT 2489-05-6, Silver behenate 3507-99-1, Silver stearate 3508-01-8, Silver palmitate 24687-57-8, Silver arachidate 639470-21-6  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (heat-developable photog. **film** contg. silver halide emulsion contg. bisphenol compd. sensitizer and stabilizer)  
 IT 4344-85-8, 1H-Benzimidazole-2-methanethiol 6258-66-8 19967-75-0  
 39088-65-8 54769-22-1 54769-49-2  
 54769-58-3 54769-59-4 65320-05-0  
 74528-24-8 378242-67-2 395651-21-5 457063-57-9  
 556825-56-0, 3-Pyridineethanethiol 695154-14-4  
 695154-15-5 695154-16-6 695154-17-7  
 695154-18-8 695154-19-9 695154-20-2  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (stabilizer; heat-developable photog. **film** contg. silver halide emulsion)

contg. bisphenol compd. sensitizer and stabilizer)

L20 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2003:890199 HCAPLUS  
 DOCUMENT NUMBER: 139:388390  
 TITLE: Image forming method by processing silver halide  
 color photographic material in low replenishing  
 volume  
 INVENTOR(S): Ishizaka, Tatsuya; Yanagi, Terukazu  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 70 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

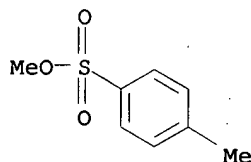
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003322941	A2	20031114	JP 2002-128755	200204 30
US 6824964	B1	20041130	US 2003-424766	200304 29
US 2005053872	A1	20050310	US 2003-748253	200312 31
US 2005118540	A1	20050602	US 2004-962851	200410 13
PRIORITY APPLN. INFO.:			JP 2002-128755	A 200204 30
			JP 2002-128756	A 200204 30
			US 2003-424766	A3 200304 29

OTHER SOURCE(S): MARPAT 139:388390

AB The Ag halide color photog. material has each  $\geq 1$  blue-, green-, and red-sensitive Ag halide emulsion layer contg. a yellow, a magenta, and a cyan coupler, resp. and  $\geq 1$  light-insensitive hydrophilic colloid layer on a reflecting support. The material contains F-contg. surfactants of  
 $A(CF_2)nB_3LB_1O_2CCR_3[(CH_2)mBSO_3MB]CR_4RB_5CO_2LB_2(CF_2)nB_4B$  [RB3-B5 = H, substituent; A, B = F, H; nB3, nB4 = 4-8; LB1, LB2 = divalent linkage formed with (un)substituted alkylene, (un)substituted alkyleneoxy, and their combination; mB = 0, 1; M = cation],  
 $RA_1LA_2C(O)CRA_3(LA_1X+Y-)(CH_2)mACRA_4RA_5C(O)LA_3RA_2$  [RA1, RA2 = (un)substituted alkyl; RA1 and/or RA2 is F-substituted alkyl; RA3-A5 = H, substituent; LA1-A3 = single bond, divalent linkage; X+ = cationic substituent; Y- = counter anion; Y- may not be needed when charge becomes 0 in the mol.; mA = 0, 1],  
 $ARCFLC_1O_2CCHYC_1CHYC_2CO_2RC_1$  [RC1 = (un)substituted alkyl; RCF = perfluoroalkylene; A = H, F; LC1 = divalent linkage formed with (un)substituted alkylene, (un)substituted alkyleneoxy, and their combination; either of YC1 or

YC2 is H and the other is LC2SO3M; M = cation], and/or (RfDLDnD)mDW (RfD = perfluoroalkyl; LD = alkylene; W = anionic, cationic, betaine, or nonionic polar group for surface activation; nD = 0, 1; mD = 1-3). The method involves processes for imagewise-exposing, color-developing at 20-60 mL/m2 replenishment, bleach-fixing at 20-50 mL/m2 replenishment, and rinsing the material. The method prevents dirt on the cut surface of the material.

IT 80-48-8, Methyl p-toluenesulfonate  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (surfactant from; image formation by processing **silver halide color photog.** material contg. F-contg. surfactants in low replenishing vol.)  
 RN 80-48-8 HCAPLUS  
 CN Benzenesulfonic acid, 4-methyl-, methyl ester (9CI) (CA INDEX NAME)



IC ICM G03C007-392  
 ICS G03C001-38; G03C001-79; G03C007-42; G03C007-44  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 46  
 IT 80-48-8, Methyl p-toluenesulfonate 108-00-9,  
 2-N,N-Dimethylaminoethylamine 108-31-6, Maleic anhydride,  
 reactions 375-01-9, 2,2,3,3,4,4,4-Heptafluorobutanol 920-66-1,  
 1,1,1,3,3,3-Hexafluoro-2-propanol 2043-47-2, 3,3,4,4,5,5,6,6-  
 Nonafluorohexanol 7423-42-9, Mono(2-ethylhexyl) maleate  
 7631-90-5, Sodium hydrogensulfite 10026-13-8, Phosphorus  
 pentachloride 205675-49-6 508194-70-5  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (surfactant from; image formation by processing **silver halide color photog.** material contg. F-contg. surfactants in low replenishing vol.)

L20 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2003:890197 HCAPLUS  
 DOCUMENT NUMBER: 139:388389  
 TITLE: Image forming method using silver halide color  
 photographic material with backing layer  
 INVENTOR(S): Ishizaka, Tatsuya; Yanagi, Terukazu; Kato,  
 Atsushi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 69 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003322927	A2	20031114	JP 2002-128756	200204 30
US 6824964	B1	20041130	US 2003-424766	200304 29

US 2005053872 A1 20050310 US 2003-748253 200312  
31

US 2005118540 A1 20050602 US 2004-962851 200410  
13

PRIORITY APPLN. INFO.: JP 2002-128755 A 200204  
30

JP 2002-128756 A 200204  
30

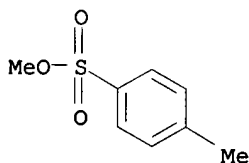
US 2003-424766 A3 200304  
29

AB The material has (a) each  $\geq 1$  blue-, green-, and red-sensitive Ag halide emulsion layer contg. a yellow, a magenta, and a cyan coupler, resp. and (b)  $\geq 1$  light-insensitive hydrophilic colloid layer on a **reflecting** support and (c) a backing layer which contains colloidal SiO<sub>2</sub> on the opposite side of the support and has surface resistivity  $\leq 1.0 + 10^{14} \Omega$  or charge leakage time  $\leq 200$  s. The method involves processes for cutting the material into a sheet, traveling by a roller and/or a conveyor, imagewise-exposing, color-developing, bleach-fixing, and rinsing. The material shows improved traveling properties owing to the backing layer.

IT 80-48-8, Methyl p-toluenesulfonate  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(surfactant in backing **layer** from; **silver**  
**halide** color **photog.** material with colloidal  
silica-contg. backing **layer** for improved traveling  
properties)

RN 80-48-8 HCAPLUS

CN Benzenesulfonic acid, 4-methyl-, methyl ester (9CI) (CA INDEX NAME)



IC ICM G03C001-76

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

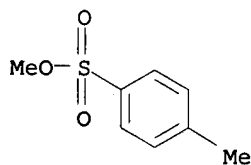
IT 80-48-8, Methyl p-toluenesulfonate 108-00-9,  
2-N,N-Dimethylaminoethylamine 108-31-6, Maleic anhydride,  
reactions 375-01-9, 2,2,3,3,4,4,4-Heptafluorobutanol 920-66-1,  
1,1,1,3,3,3-Hexafluoro-2-propanol 2043-47-2, 3,3,4,4,5,5,6,6,6-  
Nonafluorohexanol 7423-42-9, Mono(2-ethylhexyl) maleate  
7631-90-5, Sodium hydrogensulfite 10026-13-8, Phosphorus  
pentachloride 205675-49-6 508194-70-5  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(surfactant in backing **layer** from; **silver**  
**halide** color **photog.** material with colloidal  
silica-contg. backing **layer** for improved traveling  
properties)

L20 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2003:890196 HCAPLUS  
 DOCUMENT NUMBER: 139:388388  
 TITLE: Silver halide photographic material having  
 surfactant-containing layer  
 INVENTOR(S): Tsukada, Yoshihisa; Yanagi, Terukazu; Yokota,  
 Koichi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 66 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003322926	A2	20031114	JP 2002-130800	200205 02
US 2004048209	A1	20040311	US 2003-427969	200305 02
US 6872515	B2	20050329	JP 2002-130800	200205 02

PRIORITY APPLN. INFO.: JP 2002-130800 A

OTHER SOURCE(S): MARPAT 139:388388  
 AB The material has a photosensitive Ag halide emulsion layer contg.  
 anionic surfactants of R1Z1 (R1 = C6-24 unsubstituted or  
 OH-substituted alkyl, C6-24 unsubstituted alkenyl; Z1 = OSO3M, SO3M;  
 M = cation) and fluorine surfactants. The material shows improved  
 antistatic properties, preventing repellency defect on high-speed  
 coating.  
 IT 80-48-8, Methyl p-toluenesulfonate  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (surfactant from; antistatic **silver halide**  
**photog.** material having surfactant-contg. layer  
 for repellency prevention in high-speed coating)  
 RN 80-48-8 HCAPLUS  
 CN Benzenesulfonic acid, 4-methyl-, methyl ester (9CI) (CA INDEX NAME)



IC ICM G03C001-76  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)  
 Section cross-reference(s): 46  
 IT 80-48-8, Methyl p-toluenesulfonate 108-00-9,  
 2-N,N-Dimethylaminoethylamine 108-31-6, Maleic anhydride,  
 reactions 112-53-8, 1-Dodecanol 375-01-9, 2,2,3,3,4,4,4-  
 Heptafluorobutanol 920-66-1, 1,1,1,3,3,3-Hexafluoro-2-propanol  
 1310-73-2, Sodium hydroxide, reactions 2043-47-2,  
 3,3,4,4,5,5,6,6,6-Nonafluorohexanol 2170-03-8, Itaconic anhydride  
 7423-42-9, Mono(2-ethylhexyl) maleate 7631-90-5, Sodium

hydrogensulfite 7757-83-7, Sodium sulfite 7790-94-5,  
Chlorosulfonic acid 10026-13-8, Phosphorus pentachloride  
72194-91-3, 9-Tetradecen-1-ol 205675-48-5 205675-49-6  
508194-70-5

RL: RCT (Reactant); RACT (Reactant or reagent)  
(surfactant from; antistatic **silver halide**  
**photog.** material having surfactant-contg. **layer**  
for repellency prevention in high-speed coating)

L20 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:771721 HCAPLUS

DOCUMENT NUMBER: 139:283279

TITLE: Silver halide photographic materials forming  
images with good lightfastness

INVENTOR(S): Hakii, Takeshi

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

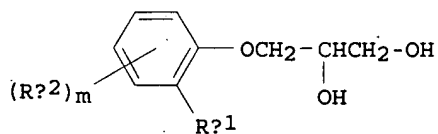
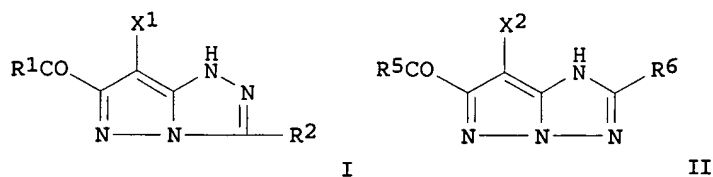
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003280149	A2	20031002	JP 2002-80562	200203 22
WO 2004086141	A1	20041007	WO 2003-JP3607	200303 25
W: BR, CN, ID, IN, JP, KR, MX, PH, PL, RU, SG, US, VN RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
US 2006177779	A1	20060810	US 2005-549553	200509 20

PRIORITY APPLN. INFO.:

JP 2002-80562 A  
200203  
22

WO 2003-JP3607 W  
200303  
25

OTHER SOURCE(S): MARPAT 139:283279  
GI

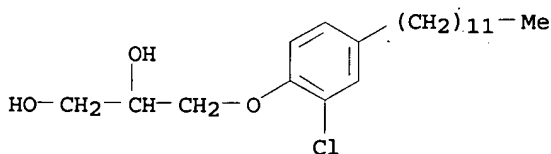


AB The materials include silver halide emulsion layers contg.  $\geq 1$  cyan couplers I or II ( $R_1 = R_3NH$ ,  $R_4O$ ;  $R_5 = R_7NH$ ,  $R_8O$ ;  $R_3$ ,  $R_4$ ,  $R_7$ ,  $R_8$  = branched alkyl, substituted alkyl, substituted aryl, heterocyclic group;  $R_2$ ,  $R_6$  = substituent;  $X_1$ ,  $X_2$  = H, group leaving under oxidn.) and org. solvents having high b.ps. III ( $R_{a1}$  = substituent;  $R_{a2}$  = H, substituent;  $m = 0-4$ ; total no. of C atoms in  $R_{a1}$  and  $R_{a2}$  is 12-36).

IT 605657-00-9 605657-31-6 605657-32-7  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (silver halide photog. materials contg. unsatd. azacyclic cyan couplers and phenoxyglycerol solvents)

RN 605657-00-9 HCAPLUS

CN 1,2-Propanediol, 3-(2-chloro-4-dodecylphenoxy)- (9CI) (CA INDEX NAME)



RN 605657-31-6 HCAPLUS

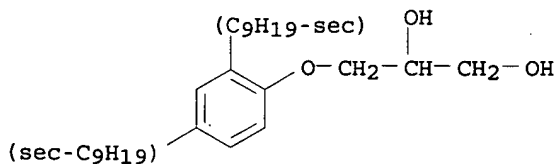
CN 1,2-Propanediol, 3-(2,4-di-sec-nonylphenoxy)-, mixt. with 3-(2,4-di-tert-nonylphenoxy)-1,2-propanediol (9CI) (CA INDEX NAME)

CM 1

CRN 183513-69-1

CMF C27 H48 O3

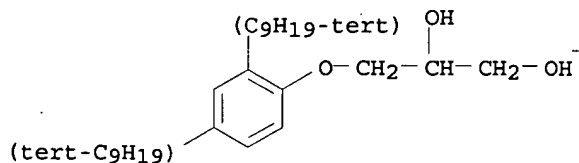
CCI IDS



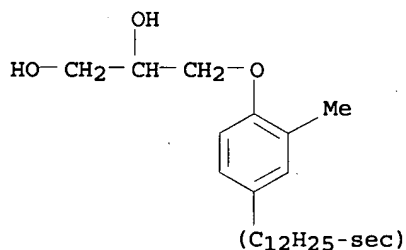


CM 2

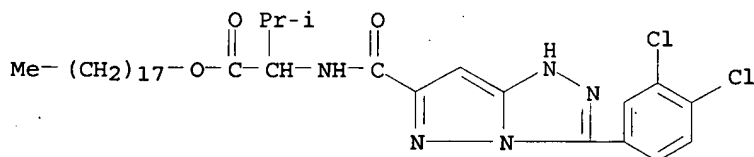
CRN 183451-92-5  
 CMF C27 H48 O3  
 CCI IDS



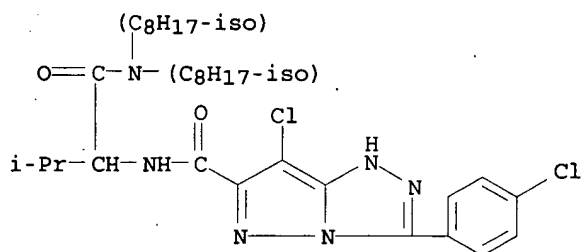
RN 605657-32-7 HCAPLUS  
 CN 1,2-Propanediol, 3-(4-sec-dodecyl-2-methylphenoxy)- (9CI) (CA INDEX NAME)



IT 209536-40-3 479355-02-7  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (silver halide photog. materials contg. unsatd. azacyclic cyan  
 couplers and phenoxyglycerol solvents)  
 RN 209536-40-3 HCAPLUS  
 CN Valine, N-[[3-(3,4-dichlorophenyl)-1H-pyrazolo[5,1-c]-1,2,4-triazol-  
 6-yl]carbonyl]-, octadecyl ester (9CI) (CA INDEX NAME)



RN 479355-02-7 HCAPLUS  
 CN 1H-Pyrazolo[5,1-c]-1,2,4-triazole-6-carboxamide,  
 7-chloro-3-(4-chlorophenyl)-N-[1-[(diisooctylamino)carbonyl]-2-  
 methylpropyl]- (9CI) (CA INDEX NAME)



IC ICM G03C007-388  
ICS G03C007-388; G03C007-392

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)

IT 605657-00-9 605657-31-6 605657-32-7  
RL: NUU (Other use, unclassified); USES (Uses)  
(silver halide photog. materials contg. unsatd. azacyclic cyan  
couplers and phenoxyglycerol solvents)

IT 209536-40-3 479355-02-7  
RL: TEM (Technical or engineered material use); USES (Uses)  
(silver halide photog. materials contg. unsatd. azacyclic cyan  
couplers and phenoxyglycerol solvents)

L20 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:47830 HCAPLUS

DOCUMENT NUMBER: 136:126463

TITLE: Silver halide color photographic materials  
having improved green-sensitive emulsion  
layers

INVENTOR(S): Hirabayashi, Shigeto; Kato, Katsunori; Sugino,  
Motoaki; Ishii, Fumio

PATENT ASSIGNEE(S):           Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 103 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

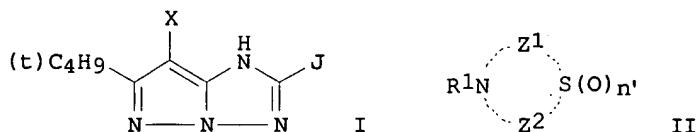
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002014446	A2	20020118	JP 2000-196455	200006 29

PRIORITY APPLN. INFO.: JP 2000-196455 200006 29

OTHER SOURCE(S) : MARPAT 136:126463  
GI



AB The materials have the title **layers** contg. magenta couplers shown as I (J = alkylene-SO<sub>2</sub>R or alkylene-NHCOR; R = alkyl, aryl; X = halo) and compds. selected from substituted phenols, substituted piperidines, alkyl or trialkylsilyl ethers of substituted phenols, II (R<sub>1</sub> = aryl, heterocyclic; Z<sub>1</sub>, Z<sub>2</sub> = C<sub>1</sub>-3 alkylene; total C no. in Z<sub>1</sub> and Z<sub>2</sub> = 3-6; n' = 1, 2), phosphoric acid triesters with (cyclo)alkyl, alkenyl, or aryl groups, compds. having 2-5 esters with (cyclo)alkyl, alkenyl, or aryl groups, substituted epoxides, phosphonic or phosphinic acid aliph. or arom. esters, RANHSO<sub>2</sub>RB (RA, RB = H, substituent), HO(J')CO<sub>2</sub>Y [J' = divalent org. group; Y = (cyclo)alkyl, aryl, (cyclo)alkenyl, alkynyl, heterocyclic], and R<sub>51</sub>O(CH<sub>2</sub>J<sub>5</sub>CH<sub>2</sub>O)<sub>1</sub>'R<sub>52</sub> (R<sub>51</sub>, R<sub>52</sub> = aliph., COR<sub>53</sub>; R<sub>53</sub> = aliph.; J<sub>5</sub> = divalent org. group, direct bond; 1' = 0-6). The materials shows good color development and reproducibility and gives image with high lightfastness.

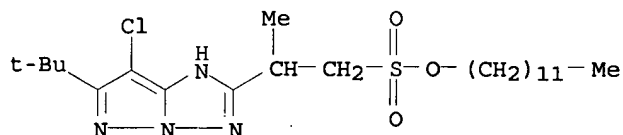
IT 389631-96-3

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(magenta couplers; **silver halide color photog.** materials having improved green-sensitive **emulsion layers** contg. magenta couplers and specific compds.)

RN 389631-96-3 HCAPLUS

CN 1H-Pyrazolo[1,5-b][1,2,4]triazole-2-ethanesulfonic acid, 7-chloro-6-(1,1-dimethylethyl)-β-methyl-, dodecyl ester (9CI) (CA INDEX NAME)



IC ICM G03C007-392

ICS G03C007-38; G03C007-388; C07D207-50; C07D211-46; C07D263-58; C07D277-06; C07D277-64; C07D279-12; C07D279-16; C07D303-38; C07D311-72; C07D311-96; C07D317-72; C07D319-08; C07D471-10; C07D487-04; C07D519-00

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST magenta coupler silver halide color photog material; phenolic compd green sensitive **layer** photog material; piperidine compd green sensitive **layer** photog material; phosphate ester green sensitive **layer** photog material; epoxide substituted green sensitive **layer** photog material; phosphonate ester green sensitive **layer** photog material; phosphinate ester green sensitive **layer** photog material; ester compd green sensitive **layer** photog material; ether compd green sensitive **layer** photog material; alc ester green sensitive **layer** photog material

IT Photographic emulsions

(color; silver halide color photog. materials having improved green-sensitive emulsion **layers** contg. magenta couplers and specific compds.)

IT Magenta couplers

(silver halide color photog. materials having improved green-sensitive emulsion **layers** contg. magenta couplers and specific compds.)

IT	262859-83-6	348602-97-1	389631-82-7	389631-84-9	389631-88-3
	389631-90-7	389631-91-8	389631-93-0	389631-94-1	389631-95-2
	389631-96-3	389631-97-4	389631-98-5	389631-99-6	
	389632-00-2	389632-01-3	389632-02-4	389632-03-5	389632-04-6
	389632-05-7	389632-06-8	389632-07-9	389632-08-0	389632-09-1

389632-10-4 389632-11-5 389632-12-6 389632-13-7 389632-14-8  
 389632-15-9 389632-16-0 389632-17-1 389632-18-2 389632-19-3  
 389632-20-6 389632-21-7 389632-22-8 389635-61-4

RL: PRP (Properties); TEM (Technical or engineered material use);  
 USES (Uses)

(magenta couplers; silver halide color  
 photog. materials having improved green-sensitive  
 emulsion layers contg. magenta couplers and  
 specific compds.)

IT 96-69-5 103-24-2 109-43-3 115-86-6 138-00-1 682-49-5  
 1024-34-6 1806-54-8 1843-03-4 2151-57-7 2461-46-3  
 2915-49-3 4200-55-9 4376-79-8 10138-36-0 10143-60-9  
 24886-40-6 28510-23-8 32390-52-6 32390-54-8 33145-10-7  
 62969-03-3 63941-34-4 63941-39-9 66259-68-5 79793-05-8  
 89929-65-7 109870-88-4 116594-47-9 117490-67-2 117686-50-7  
 124347-31-5 137644-20-3 140838-59-1 153988-99-9 192632-35-2  
 339563-05-2 339563-08-5 339563-10-9 339563-13-2 389632-24-0  
 389632-25-1 389632-26-2 389632-28-4 389632-29-5 389635-62-5

RL: PRP (Properties); TEM (Technical or engineered material use);  
 USES (Uses)

(silver halide color photog. materials having improved  
 green-sensitive emulsion layers contg. magenta couplers  
 and specific compds.)

L20 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:843779 HCAPLUS

DOCUMENT NUMBER: 135:378682

TITLE: Methine cyanine dye for spectrally-sensitized  
 silver halide photographic emulsions

INVENTOR(S): Kobayashi, Masaru

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 54 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

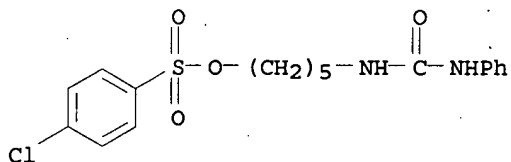
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001323180	A2	20011120	JP 2000-140205	200005 12
US 2002012892	A1	20020131	US 2001-848341	200105 04
US 6692905	B2	20040217		
CN 1324005	A	20011128	CN 2001-115882	200105 11
PRIORITY APPLN. INFO.:			JP 2000-140205	A 200005 12

AB The title methine cyanine dye has  $\geq 1$  group in the mol.  
 represented by X-H (X = atom having more elec. neg. than C) and Y (Y  
 = atom having  $\geq 1$  lone electron pair more neg. than C). The  
 methine cyanine dye can be used for a diffusion transfer Ag halide  
 photog. material. The methine cyanine dye is subjected to J-assocn.  
 in an aq. gelatin soln. The use of the methine cyanine dye provided  
 a Ag halide photog. material having little residual color and high  
 sensitivity.

IT 374559-56-5P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);  
 RACT (Reactant or reagent)  
 (prepn. of methine cyanine dye for Ag halide  
 photog. emulsions)  
 RN 374559-56-5 HCAPLUS  
 CN Benzenesulfonic acid, 4-chloro-, 5-[[[(phenylamino)carbonyl]amino]pen  
 tyl ester (9CI) (CA INDEX NAME)



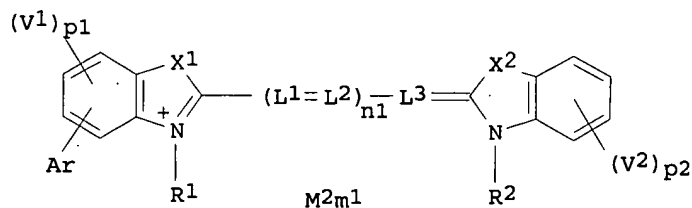
IC ICM C09B023-00  
 ICS C09B023-00; G03C001-035; G03C001-06; G03C001-09; G03C001-12;  
 G03C001-34; G03C005-02; C07D263-62; C07D417-06  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)  
 Section cross-reference(s): 41  
 IT 140-38-5P 14253-37-3P 374559-56-5P 374559-58-7P  
 374559-60-1P 374559-61-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);  
 RACT (Reactant or reagent)  
 (prepn. of methine cyanine dye for Ag halide  
 photog. emulsions)

L20 ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2001:406323 HCAPLUS  
 DOCUMENT NUMBER: 135:26810  
 TITLE: Methine sensitizer dye for silver halide  
 photographic film  
 INVENTOR(S): Kobayashi, Masaru; Kato, Takashi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001152037	A2	20010605	JP 1999-331567	199911 22

PRIORITY APPLN. INFO.: JP 1999-331567  
 199911  
 22

OTHER SOURCE(S): MARPAT 135:26810  
 GI



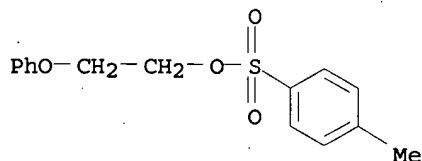
AB The title dye has structure I (Ar = Ph, heterocyclics; X1-2 = O, S, N, etc.; L1-3 = methine; R1-2 = alkyl, aryl, heterocyclics; n1 = 0-3 integer; V1-2 = substituent; p1 = 0-3 integer; p2 = 0-4 integer; M1 = counter ion; m1 =  $\geq 0$  integer). The dye provides the photog. materials of the improved light-absorbing properties and the increased sensitivity.

IT 43224-81-3

RL: RCT (Reactant); RACT (Reactant or reagent)  
(methine sensitizer dye for silver halide photog. film)

RN 43224-81-3 HCAPLUS

CN Ethanol, 2-phenoxy-, 4-methylbenzenesulfonate (9CI) (CA INDEX NAME)



IC ICM C09B023-00

ICS C09B023-00; G03C001-14

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 41

IT 43224-81-3 57268-16-3, 5-Bromo-2-methylthiazole  
100379-00-8

RL: RCT (Reactant); RACT (Reactant or reagent)  
(methine sensitizer dye for silver halide photog. film)

L20 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:210114 HCAPLUS

DOCUMENT NUMBER: 134:245193

TITLE: Silver halide photosensitive materials having resistance to radiation

INVENTOR(S): Kondo, Akiya; Tozai, Masakazu

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 125 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001075243	A2	20010323	JP 1999-251651	19990906

199909  
06

PRIORITY APPLN. INFO.:

<--  
JP 1999-251651199909  
06

OTHER SOURCE(S): MARPAT 134:245193

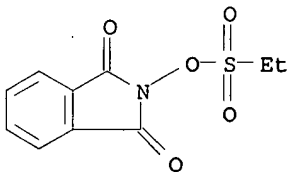
AB The materials comprise a support and  $\geq 1$  Ag halide emulsion layer(s) with at least 1 layer contg. development inhibitor releasing (DIR) couplers, and show 120-300% swelling in developing solns. In the materials  $\geq 1$  Ag halide layers contain Ag halide particles (a) contg.  $\geq 1$  atoms, ions, complexes, or complex ions of multivalent metals, (b) having flat shape of av. thickness  $< 0.07 \mu\text{m}$ , etc. The Ag halide particles contained in the layers are further specified. Additives for the materials are also given in Markush structures. The materials are resistant to exposure under radiation, e.g. x-ray inspection systems in airports.

IT 76656-44-5

RL: TEM (Technical or engineered material use); USES (Uses)  
(photog. emulsion contg.; silver  
halide photog. materials with resistance to  
x-ray irradiation.)

RN 76656-44-5 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[(ethylsulfonyl)oxy]- (9CI) (CA INDEX  
NAME)



IC ICM G03C007-305

ICS G03C001-015; G03C001-035; G03C001-09; G03C001-30

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)

ST silver halide photog film x ray resistance

IT Photographic emulsions

Photographic films

(silver halide photog. materials with resistance to x-ray  
irradiation.)

IT 119-80-2 120-78-5 128-37-0, uses 1758-73-2, Thiourea dioxide

3696-28-4 4751-25-1 7721-54-2 9003-11-6, Ethylene

oxide-propylene oxide copolymer 13242-17-6 15658-35-2

23249-95-8 31999-88-9 36365-79-4 40442-43-1 76656-44-5

85902-42-7 89705-82-8 100758-45-0 114625-74-0 121941-88-6

160380-36-9 160380-45-0 172903-19-4 208777-95-1

RL: TEM (Technical or engineered material use); USES (Uses)

(photog. emulsion contg.; silver

halide photog. materials with resistance to  
x-ray irradiation.)

L20 ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:705345 HCAPLUS

DOCUMENT NUMBER: 133:288786

TITLE: Silver halide color photographic film with  
excellent shelf life, reduced fog, and high  
sensitivity

INVENTOR(S): Kawabe, Satomi; Hoshino, Hiroyuki

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 67 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000275802	A2	20001006	JP 1999-79969	19990324

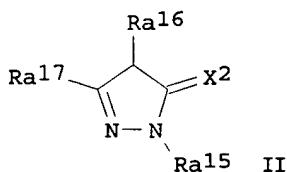
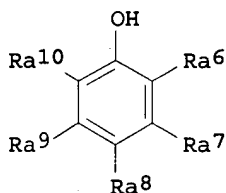
PRIORITY APPLN. INFO.:

JP 1999-79969

19990324

OTHER SOURCE(S):  
 GI

MARPAT 133:288786



AB The photog. film contains at least 1 kind of compd. selected from R11OCO(CH2)mCO2R12, R21OCO(CnH2n-2)CO2R22, R31OCO(CH2)pCO2R32, R41R42R43COH, and X-((CH2)q-O(CO)R51)r [R11, R12, R21, R22 = C4-10-alkyl; m,n = 2-10; R31, R32 = C3-24-alkyl; p = 2-10; R41 = alkyl, alkenyl; R42, R43 = H, alkyl, alkenyl; X = 5- to 7-membered satd. hydrocarbon ring; q = 0-2; r = 1-3; R51 = C4-16-alkyl], and at least 1 radical scavenger selected from Xa1-(C(Ra1):Y)n-Xa2 [Xa1, Xa2 = -ORa3, -N(Ra4)Ra5; Ra3 = H, group capable of becoming H upon hydrolysis; Ra4, Ra5 = H, alkyl, alkenyl, aryl, heterocycle, sulfonyl, acyl, etc.; Y = C(Ra2), N; Ra1, Ra2 = H, substituent; n ≥ 0], I [Ra6-10 = H, alkyl, alkenyl, aryl, etc.], II [Ra15 = H, alk. metal, quaternary ammonium; Ra16, Ra17 = H, halo, alkyl, aryl, etc.; Xa = O, substituted imino], and Ra19Ra20NORa18 [Ra18 = alkyl, alkenyl, aryl, heterocycle, acyl, sulfonyl; Ra19 = alkyl, alkenyl, aryl, etc.; Ra20 = H, alkyl, alkenyl, aryl, etc.].

IT 76656-44-5

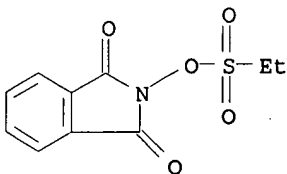
RL: DEV (Device component use); USES (Uses)

(in Ag halide color photog.

film with excellent shelf life, reduced fog, and high sensitivity)

RN 76656-44-5 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[(ethylsulfonyl)oxy]- (9CI) (CA INDEX NAME)





IC ICM G03C007-388  
 ICS C09B023-00; C09B055-00; G03C001-09; G03C001-12; G03C001-28;  
 G03C001-34; G03C007-392

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)

IT 103-24-2, Di-(2-ethylhexyl) azelate 109-43-3, Dibutyl sebacate  
 112-53-8, Dodecanol 119-47-1 120-78-5 142-16-5,  
 Di-(2-ethylhexyl) maleate 3696-28-4 4147-64-2 4751-25-1  
 5117-16-8 13242-17-6 15658-35-2 15909-94-1 23249-95-8  
 26832-47-3 33703-08-1, Di-iso-nonyl adipate 33901-81-4  
 34421-11-9 38222-35-4 42047-33-6 43023-31-0 53148-32-6  
 60483-74-1 76656-44-5 81645-24-1 85902-42-7  
 89705-82-8 99131-26-7 100232-43-7 100758-45-0 109775-22-6  
 113339-56-3 114625-74-0 121941-88-6 135101-46-1 148647-43-2  
 160380-36-9 160380-45-0 161765-65-7 172903-19-4 175665-33-5  
 200436-17-5 206439-46-5 208777-95-1 220039-40-7 223390-28-1  
 223397-33-9 237390-72-6

RL: DEV (Device component use); USES (Uses)  
 (in Ag halide color photog.  
 film with excellent shelf life, reduced fog, and high  
 sensitivity)

L20 ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:356721 HCAPLUS

DOCUMENT NUMBER: 132:354687

TITLE: Silver halide photographic emulsion with  
 improved sensitivity and shelf life and silver  
 halide photographic material using the same

INVENTOR(S): Kondo, Akiya; Minakami, Hiromichi

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 52 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000147700	A2	20000526	JP 1998-314669	199811 05

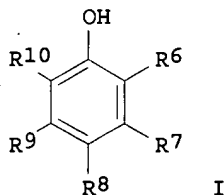
PRIORITY APPLN. INFO.:

JP 1998-314669

199811  
05

OTHER SOURCE(S): MARPAT 132:354687

GI



AB The title Ag halide photog. material contains a compd. (or its  
 oxide) represented by X1-(C(R1):Y)n-X2 [X1, X2 = -OR3, -N(R4)R5; R3

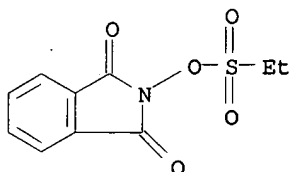
= H, group capable of becoming H upon hydrolysis; R4, R5 = H, alkyl, aryl, heterocycle, sulfonyl, acyl, sulfamoyl, carbamoyl; Y = C(R2), N; R1, R2 = H, substituent; n ≥ 0], I [R6-10 = H, alkyl, alkenyl, aryl, heterocycle, etc.] and AgI-content-specified tabular Ag halide grains.

IT 76656-44-5

RL: MOA (Modifier or additive use); USES (Uses)  
(additive to Ag halide photog.  
emulsion to improve sensitivity)

RN 76656-44-5 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[(ethylsulfonyl)oxy]- (9CI) (CA INDEX NAME)



IC ICM G03C001-035

ICS G03C001-035; G03C001-34

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST silver halide photog emulsion film paper

IT Photographic emulsions

Photographic films

Photographic paper

Radiographic films

(Ag halide photog. emulsion with improved sensitivity and shelf life and Ag halide photog. material)

IT 128-37-0, uses 10021-55-3 76656-44-5 99067-48-8

163186-54-7 237390-72-6 269741-87-9 269741-88-0

RL: MOA (Modifier or additive use); USES (Uses)

(additive to Ag halide photog.  
emulsion to improve sensitivity)

L20 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:181200 HCAPLUS

DOCUMENT NUMBER: 132:214735

TITLE: High sensitive silver halide emulsion and silver halide photographic material using the same

INVENTOR(S): Kobayashi, Suguru

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 76 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000081680	A2	20000321	JP 1998-249939	19980903

PRIORITY APPLN. INFO.:

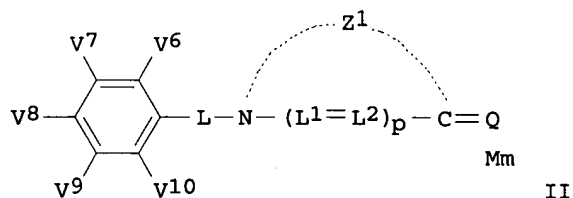
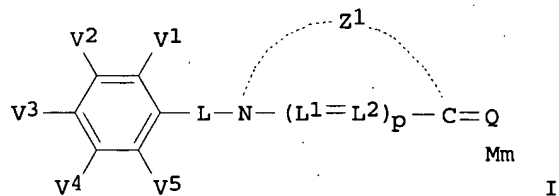
JP 1998-249939

19980903

OTHER SOURCE(S):

MARPAT 132:214735

GI



AB The Ag halide emulsion contains 2 kinds of methine compds. of I (V1-5 = H, substituent; L = divalent connection group; Z1 = atoms for forming 5- to 6-membered N-contg. ring; L1, L2 = methine; p = 0, 1; Mm = counter ion; Q = methine, polymethine) and II (V6-10 = H, substituent; L = divalent connection group; Z1 = atoms for forming 5- to 6-membered N-contg. ring; L1, L2 = methine; p = 0, 1; Mm = counter ion; Q = methine, polymethine).

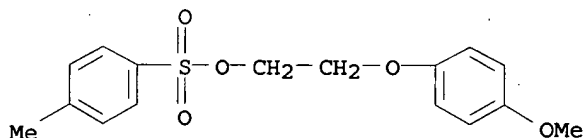
IT 60225-60-7P 67238-50-0P 176091-67-1P  
260433-90-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);  
RACT (Reactant or reagent)

(prepn. of methine compds. for high sensitive Ag  
halide photog. emulsion)

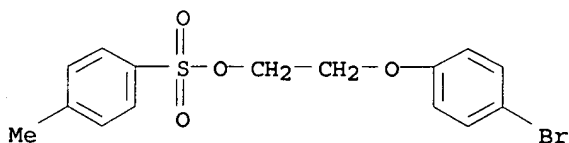
RN 60225-60-7 HCAPLUS

CN Ethanol, 2-(4-methoxyphenoxy)-, 4-methylbenzenesulfonate (9CI) (CA  
INDEX NAME)



RN 67238-50-0 HCAPLUS

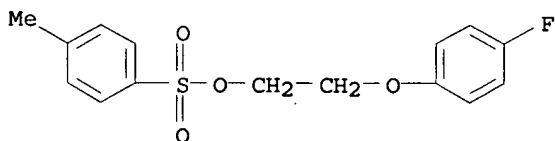
CN Ethanol, 2-(4-bromophenoxy)-, 4-methylbenzenesulfonate (9CI) (CA  
INDEX NAME)



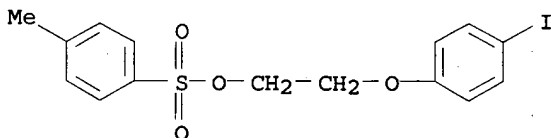
RN 176091-67-1 HCAPLUS

CN Ethanol, 2-(4-fluorophenoxy)-, 4-methylbenzenesulfonate (9CI) (CA

INDEX NAME)



RN 260433-90-7 HCAPLUS

CN Ethanol, 2-(4-iodophenoxy)-, 4-methylbenzenesulfonate (9CI) (CA  
INDEX NAME)

IC ICM G03C001-29

ICS G03C001-14

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)

Section cross-reference(s): 41

IT Color photographic paper

Photographic emulsions

Photographic films

Photographic sensitizers

(high sensitive Ag halide emulsion contg. specified methine  
compds. and Ag halide photog. material using the same)

IT 2924-66-5P 5394-57-0P, 2-(4-Methoxyphenoxy)ethanol 29639-77-8P,

2-(p-Iodophenoxy)ethanol 60225-60-7P 67238-50-0P

176091-67-1P 260433-85-0P 260433-87-2P 260433-89-4P

260433-90-7P 260433-92-9P 260433-94-1P 260433-96-3P

260433-98-5P 260434-00-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);

RACT (Reactant or reagent)

(prepn. of methine compds. for high sensitive Ag  
halide photog. emulsion)

L20 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:143329 HCAPLUS

DOCUMENT NUMBER: 132:187585

TITLE: Silver halide photographic material with  
improved sensitivity and reduced fog

INVENTOR(S): Kashiwagi, Hiroshi

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 41 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000066328	A2	20000303	JP 1998-235691	199808 21

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PRIORITY APPLN. INFO.:

JP 1998-235691

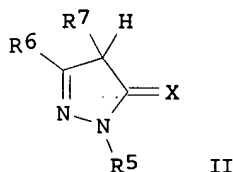
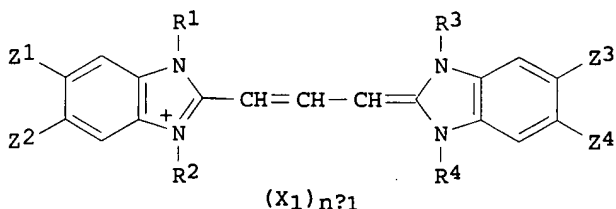
199808

21

OTHER SOURCE(S):  
GI

MARPAT 132:187585

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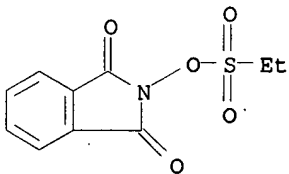
AB In the title photog. material comprising at least 1 photosensitive Ag halide emulsion layer and hydrophilic colloidal layers on a support, the hydrophilic colloidal layer contains a sensitizing dye I (R1, R3 = lower alkyl, alkenyl; R2, R4 = alkyl, alkyl contg. hydrophilic group; Z1-4 = H, substituent; X1 = counter ion; n = 1, 2) and a compd. II (R5 = H, alkali metal atom, quaternary ammonium; R6, R7 = H, halo, alkyl, aryl, alkoxy, aryloxy, alkylthio, acyl, etc.; X = O, N-Q; Q = H, halo, alkyl, aryl, etc.) or III (R8 = alkyl, alkenyl, aryl, heterocycle, acyl, sulfonyl; R9 = alkyl, alkenyl, aryl, etc.; R10 = H, alkyl, alkenyl, aryl, etc.).

IT 76656-44-5

RL: DEV (Device component use); USES (Uses)  
(in Ag halide photog. film  
for reducing fog)

RN 76656-44-5 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[(ethylsulfonyl)oxy]- (9CI) (CA INDEX NAME)



IC ICM G03C001-18

ICS G03C001-34

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)

IT 53666-87-8 76656-44-5 237390-72-6 255835-42-8  
255835-70-2 255835-71-3 259269-08-4 259269-09-5

RL: DEV (Device component use); USES (Uses)

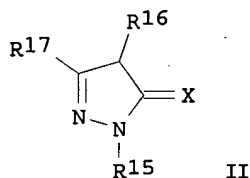
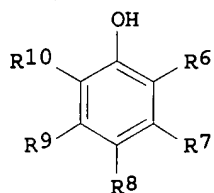
(in Ag halide photog. film  
for reducing fog)

L20 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2000:48959 HCAPLUS  
DOCUMENT NUMBER: 132:115152  
TITLE: Silver halide photographic material  
INVENTOR(S): Kimura, Osamu; Minakami, Hiromichi  
PATENT ASSIGNEE(S): Konica Co., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000019675	A2	20000121	JP 1998-186308	19980701

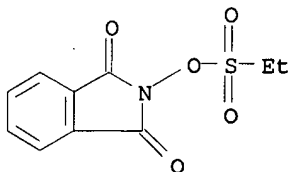
PRIORITY APPLN. INFO.: JP 1998-186308  
19980701

OTHER SOURCE(S): MARPAT 132:115152  
GI



AB In the title photog. material possessing photog. constitutive layers on a support,  $\geq 1$  of the layers is a Ag halide emulsion layer contg. metal-doped Ag halide grains and  $\geq 1$  of the layers contains (i)  $\geq 1$  compd.  $X1(CR1:Y)nX2$  [ $X1, X2 = OR3, NR4R5$  ( $R3 = H$  or group which can be hydrolyzed to become H;  $R4, R5 = H, alkyl, aryl, heterocyclic group, sulfonyl, acyl, sulfamoyl, carbamoyl$ );  $Y = CR2$  or N;  $R1, R2 = H$  or substituent;  $n \geq 0$ , when  $n \geq 2$ , a ring may be formed], I ( $R6-10 = H, alkyl, aryl, heterocyclic group, acyl, sulfonyl, carboxyl, carbamoyl, sulfamoyl, halo, OR11, SR12, NR13R14$ ;  $R11-14 = H, alkyl, alkenyl, aryl, heterocyclic group, acyl, sulfonyl$ ) or its oxidized product, (ii)  $\geq 1$  compd. II [ $R15 = H, alkali metal, quaternary ammonium$ ;  $R16, R17 = H, halo, alkyl, aryl, alkoxy, aryloxy, alkylthio, acyl, acylamino, nitro, cyano, oxycarbonyl, carboxyl, sulfo, hydroxy, ureido, sulfonamide, sulfamoyl, carbamoyl, acyloxy, amino, sulfonyl, sulfinyl, heterocyclic group$ ;  $X = O$  or (substituted) imino] or its oxidized product or (iii)  $\geq 1$  compd.  $R18ONR19R20$  ( $R18 = alkyl, alkenyl, aryl, heterocyclic group, acyl, sulfonyl$ ;  $R19 = alkyl, alkenyl, aryl, heterocyclic group, acyl, sulfonyl, sulfinyl, carbamoyl, sulfamoyl, oxycarbonyl$ ;  $R20 = H, alkyl, alkenyl, aryl, heterocyclic group, acyl, sulfonyl, sulfinyl, carbamoyl, sulfamoyl, oxycarbonyl$ ) or its oxidized product. The material shows high sensitivity, low fog, and improved storage stability under high moisture conditions.

IT 76656-44-5  
 RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)  
 (photog. film contg. metal-doped silver halide emulsion and fog inhibitor)  
 RN 76656-44-5 HCAPLUS  
 CN 1H-Isoindole-1,3(2H)-dione, 2-[(ethylsulfonyl)oxy]- (9CI) (CA INDEX NAME)



IC ICM G03C001-34  
 ICS G03C001-08; G03C001-09  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT Photographic emulsions  
 Photographic fog inhibitors  
 (photog. film contg. metal-doped silver halide emulsion and fog inhibitor)  
 IT 6628-22-4 33901-81-4 76656-44-5 99067-48-8  
 237390-72-6 255737-00-9 255835-41-7 255835-42-8  
 RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)  
 (photog. film contg. metal-doped silver halide emulsion and fog inhibitor)  
 IT 10025-82-8, Indium trichloride 13408-63-4, Hexacyanoferrate(4-)  
 RL: DEV (Device component use); MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (photog. film contg. metal-doped silver halide emulsion and fog inhibitor)

L20 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2000:48957 HCAPLUS  
 DOCUMENT NUMBER: 132:115150  
 TITLE: Silver halide photographic material with emulsion layer containing grains prepared in the presence of metal complex bearing spectral sensitizer ligand  
 INVENTOR(S): Okamura, Akie; Minakami, Hiromichi  
 PATENT ASSIGNEE(S): Konica Co., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 49 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000019673	A2	20000121	JP 1998-186309	19980701

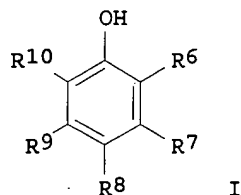
PRIORITY APPLN. INFO.:

JP 1998-186309

199807

01

OTHER SOURCE(S): MARPAT 132:115150  
GI



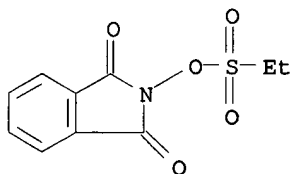
AB The material comprises a support having thereon  $\geq 1$  an emulsion layer contg. a Ag halide grain prepd. in the presence of (an oxide of) a metal complex I or II ( $Z1, Z2$  = atoms to form a 5- or 6-membered N-contg. heterocyclic ring;  $D1, D2$  = atoms to form a polymethine dye;  $q1, q2 = 0, 1$ ;  $m = 3, 4, 5$ ;  $V$  = ions to neutralize intramol. charges;  $l$  = the no. of the ions) and  $\geq 1$  a layer contg. (an oxide of)  $X1(CR1:Y)nX2$  ( $X1, X2 = OR3, NR4R5$ ;  $R3 = H$ , groups which become H by hydrolysis;  $R4, R5 = H$ , alkyl, etc.;  $Y = CR2, N$ ;  $R1, R2 = H$ , substituent;  $n \geq 0$ ) or (an oxide of) III ( $R6-10 = H$ , alkyl, etc.). A photog. material with  $\geq 1$  an emulsion layer prepd. in the presence of I or II and  $\geq 1$  a layer contg. (an oxide of) IV [ $R15 = H$ , alkali metal atom, quaternary ammonium salt;  $R16, R17 = H$ , halo, alkyl, etc.;  $Xa = 0$ , (substituted) imino] or  $\geq 1$  a layer contg. (an oxide of)  $\geq 1$   $R19R20NOR18$  (VI;  $R18 =$  alkyl, alkenyl, etc.;  $R19 =$  alkyl, alkenyl, etc.;  $R20 = H$ , alkyl, etc.) is also claimed. Preferably,  $\geq 1$  layer of above emulsion layers may be redn.-sensitized. The photog. material has high sensitivity and min. increase in fogging in high humidity environment.

IT 76656-44-5

RL: TEM (Technical or engineered material use); USES (Uses)  
(silver halide photog. material  
with emulsion layer contg. grains prepd. in  
the presence of metal complex bearing spectral sensitizer ligand)

RN 76656-44-5 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[(ethylsulfonyl)oxy]- (9CI) (CA INDEX NAME)



IC ICM G03C001-09

ICS G03C001-015; G03C001-08; G03C001-34

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Photographic emulsions

Photographic sensitizers

(silver halide photog. material with emulsion layer  
contg. grains prepd. in the presence of metal complex bearing  
spectral sensitizer ligand)

IT 1758-73-2, Thiourea dioxide



RL: TEM (Technical or engineered material use); USES (Uses)  
(redn. sensitizer; silver halide photog. material with emulsion  
layer contg. grains prepd. in the presence of metal  
complex bearing spectral sensitizer ligand)

IT 76656-44-5 168832-87-9 172903-18-3 233606-47-8  
237390-72-6 255736-99-3 255737-00-9 255842-01-4 255842-02-5  
255842-03-6

RL: TEM (Technical or engineered material use); USES (Uses)  
(silver halide photog. material  
with emulsion layer contg. grains prepd. in  
the presence of metal complex bearing spectral sensitizer ligand)

L20 ANSWER 16 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:587928 HCAPLUS

DOCUMENT NUMBER: 131:235681

TITLE: Silver halide photographic material and image  
formation using same

INVENTOR(S): Miyazawa, Kazuhiro; Kokeyuchi, Noriyuki; Ito,  
Junji

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11249271	A2	19990917	JP 1998-49288	199803 02

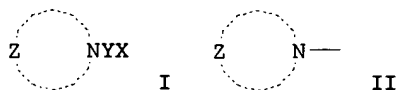
PRIORITY APPLN. INFO.:

JP 1998-49288

199803  
02

OTHER SOURCE(S): MARPAT 131:235681

GI



AB The title material possesses  $\geq 1$  color image-forming  
layer contg. a dye-donating substance and 0.001-0.1 g/m<sup>2</sup> of  
a photosensitive Ag halide having a AgCl content of  $\geq 80$  mol%  
on a support and contains a non-coloring and water-insol. compd. I  
[X = electron-attracting group with Hammett's substituent const.  
 $\sigma_p \geq 0.25$ ; Y = alkylene having a C1-4 main chain; Z =  
nonmetal atoms required to form a 5- to 7- membered non-arom.  
heterocycle along with the N, when N which can be substituted is  
present in Z, the N is substituted by Y'X' (X' and Y' are the same  
as defined for X and Y, resp., and X and X' and Y and Y' are the  
same or different), this compd. has no basic amino group other than  
the non-arom. heterocycle basic skeleton represented by the formula  
II and the total C no. of this mol. is  $\geq 14$ ]. The material  
may possess, on a support,  $\geq 1$  color image-forming  
layer contg. the Ag halide and  $\geq 1$  yellow coupler III  
[RA = alkyl, cycloalkyl; RB = alkyl, cycloalkyl, acyl, aryl; RC =  
substituent; RD = alkyl; J = NRECO, CONRE (RE = H, alkyl, aryl,

heterocycle), CO<sub>2</sub>; n' = 0-3; ZA = H, IV-VII (R<sub>1</sub> = substituent; R<sub>2</sub> = H, alkyl, aryl, acyl, sulfonyl; i, j, k, m = 0-8; l = 0-2)]. The material is imagewise exposed and subjected to amplified development and optionally to bleaching using peroxide bleaching agents to form an image. The material, possessing ≥1 color image-forming layer contg. the coupler and the Ag halide on a support, may be processed with a photog. processing soln. contg. Fe and Ag ≤1 g/L in each immediately after amplified development following exposure. The material suppresses increase of yellow Dmin when the processing time is shortened.

IT 191422-58-9

RL: DEV (Device component use); MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(silver chloride-rich photog.

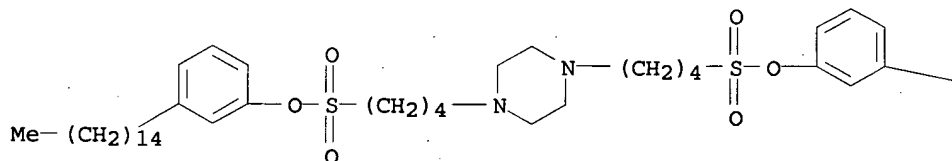
emulsion contg. non-coloring and water-insol.

heterocyclic compd.)

RN 191422-58-9 HCAPLUS

CN 1,4-Piperazinedibutanesulfonic acid, bis(3-pentadecylphenyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— (CH<sub>2</sub>)<sub>14</sub>—Me

IC ICM G03C007-392

ICS G03C001-035; G03C007-36; G03C007-407; G03C007-42

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST anilide compd photog yellow coupler; water insoluble heterocyclic compd photog film

IT 111980-81-5 191422-54-5 191422-56-7 191422-58-9

191422-59-0 191422-62-5 191422-67-0 243964-67-2

RL: DEV (Device component use); MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(silver chloride-rich photog.

emulsion contg. non-coloring and water-insol.

heterocyclic compd.)

L20 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:480321 HCAPLUS

DOCUMENT NUMBER: 127:101712

TITLE: Silver halide color photographic photosensitive material having pyrazolotriazole-type magenta coupler

INVENTOR(S): Yasukawa, Hiroyuki; Sugita, Shuichi; Kaneko, Yutaka

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 29 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

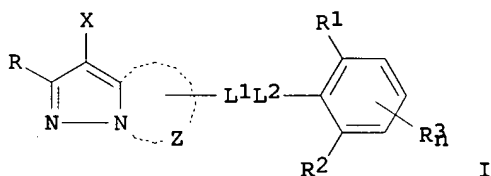
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09146239	A2	19970606	JP 1995-305898	19951124

PRIORITY APPLN. INFO.:

JP 1995-305898

19951124

OTHER SOURCE(S): MARPAT 127:101712  
 GI



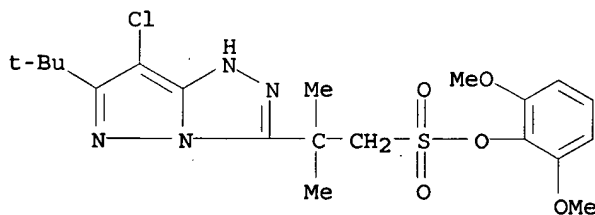
AB The title material, comprising a support coated with photog. layers contg. blue-, green-, and red-sensitive Ag halide emulsion layers, contains, in  $\geq 1$  of the green-sensitive layers,  $\geq 1$  coupler I (R = H, substituent; R1, R2 = alkyl, alkoxy, aryl, aryloxy, halo; R3 = substituent; L1 = alkylene; L2 = CO2, OCO, SO3, OSO2, CONR4, NR5CO, SO2NR6, NR7SO2; R4-7 = H, substituent; X = H, group releasing upon reaction with oxidized developing agents; Z = nonmetal atoms required to form a N-contg. heterocycle; n = 0-3). The materials shows good coloring properties and provides magenta images with excellent lightfastness.

IT 192192-14-6

RL: TEM (Technical or engineered material use); USES (Uses)  
 (pyrazolotriazole magenta coupler for silver halide photog. emulsion)

RN 192192-14-6 HCAPLUS

CN 1H-Pyrazolo[5,1-c]-1,2,4-triazole-3-ethanesulfonic acid, 7-chloro-6-(1,1-dimethylethyl)- $\beta$ , $\beta$ -dimethyl-, 2,6-dimethoxyphenyl ester (9CI) (CA INDEX NAME)



IC ICM G03C007-38

ICS G03C007-00

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 192192-09-9 192192-10-2 192192-11-3 192192-12-4 192192-13-5  
 192192-14-6 192192-17-9 192192-18-0 192192-19-1  
 192192-20-4

RL: TEM (Technical or engineered material use); USES (Uses)  
 (pyrazolotriazole magenta coupler for silver  
 halide photog. emulsion)

L20 ANSWER 18 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:383584 HCAPLUS

DOCUMENT NUMBER: 127:25900

TITLE: Silver halide photographic material using  
 specific spectral sensitizing dye

INVENTOR(S): Ishii, Fumio; Kagawa, Nobuaki

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

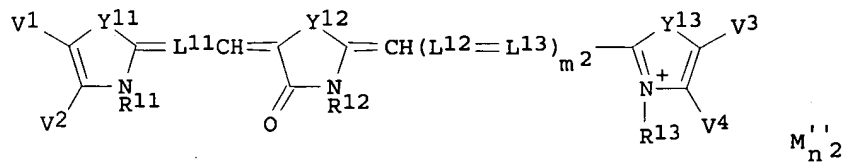
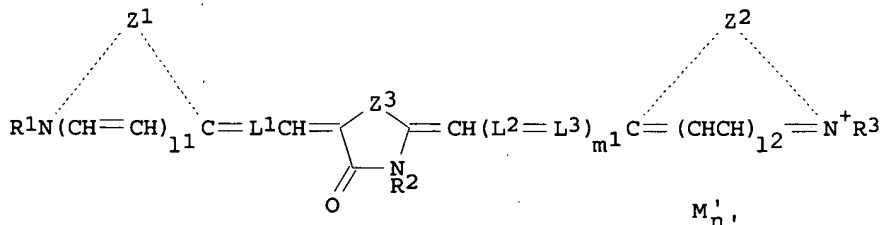
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09101588	A2	19970415	JP 1995-256472	19951003
PRIORITY APPLN. INFO.: JP 1995-256472				19951003

GI



AB The title material contains, in  $\geq 1$  of the Ag halide emulsion layers, a spectral sensitizing dye I or II [Z1, Z2 = 5- or 6-membered N-contg. heterocycle; Z3, Y11-13 = NR, O, S, Se, Te; R1, R3, R11, R13 = C $\leq$ 10 aliph. group; R, R2, R12 = aliph. group, aryl, heterocycle,  $\geq 1$  R and R1-3 and  $\geq 1$  of R11-13 = water-sol. group-contg. substituent; V1-4 = H, alkyl, alkoxy, aryl,

V1-V2 or V3-V4 may link to form a condensed ring along with the azole ring; L1, L11 = halo-substituted methine group; L2, L3, L12, L13 = (substituted) methine group; l1, l2, m1, m2 = 0, 1; M1, M11 = counter ion; n1, n2 = no. required to neutralize the total charge of the mol]. The Ag halide grains in the emulsion layer may contain  $\geq 1$  Ir compd. at  $10^{-8}$ - $10^{-4}$  mol/mol Ag. The material shows high spectral sensitivity in red light regions and low residual color stain.

IT 80-48-8, Methyl p-toluenesulfonate

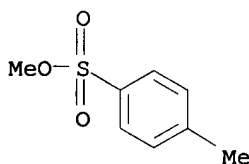
RL: RCT (Reactant); RACT (Reactant or reagent)

(silver halide photog.

emulsion contg. azole-type spectral sensitizing dye from)

RN 80-48-8 HCAPLUS

CN Benzenesulfonic acid, 4-methyl-, methyl ester (9CI) (CA INDEX NAME)



IC ICM G03C001-22

ICS G03C001-09

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 41

IT 77-78-1, Dimethyl sulfate 80-48-8, Methyl p-toluenesulfonate 182946-40-3 190017-82-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(silver halide photog.

emulsion contg. azole-type spectral sensitizing dye from)

L20 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:267998 HCAPLUS

DOCUMENT NUMBER: 124:328333

TITLE: Silver halide light-sensitive photographic material and method of processing thereof

INVENTOR(S): Nishimura, Motoi; Sato, Hirokazu; Kita, Hiroshi

PATENT ASSIGNEE(S): Konica Corporation, Japan

SOURCE: Eur. Pat. Appl., 69 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 697625	A2	19960221	EP 1995-112344	19950805
EP 697625	A3	19970115		
R: DE, FR, GB, NL				
JP 08054716	A2	19960227	JP 1994-190647	19940812
US 5576161	A	19961119	US 1995-505901	19950724

PRIORITY APPLN. INFO.:

JP 1994-190647

A

199408

12

&lt;--

OTHER SOURCE(S): MARPAT 124:328333

AB A silver halide color photog. material improved in color-forming properties and lightfastness of color images is disclosed, comprising a support having thereon a light-sensitive silver halide emulsion layer and a nonlight-sensitive layer, wherein the nonlight-sensitive layer contains a UV absorbent and the silver halide emulsion layer contains a polyhydric alc.

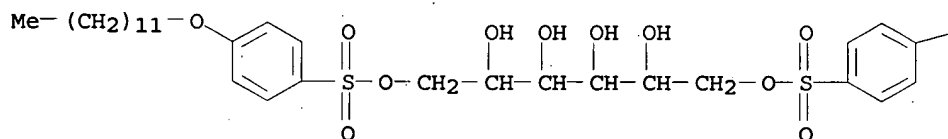
IT 176035-21-5 176035-23-7 176330-38-4

RL: TEM (Technical or engineered material use); USES (Uses)  
(silver halide photog.  
films contg.)

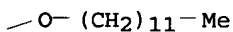
RN 176035-21-5 HCAPLUS

CN Hexitol, 1,6-bis[4-(dodecyloxy)benzenesulfonate] (9CI) (CA INDEX NAME)

PAGE 1-A

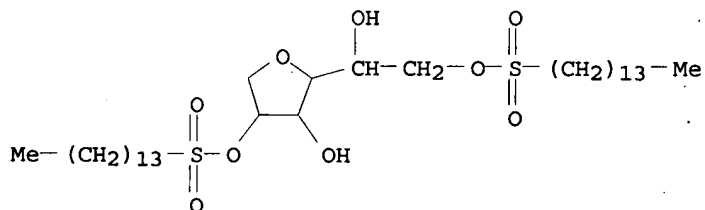


PAGE 1-B



RN 176035-23-7 HCAPLUS

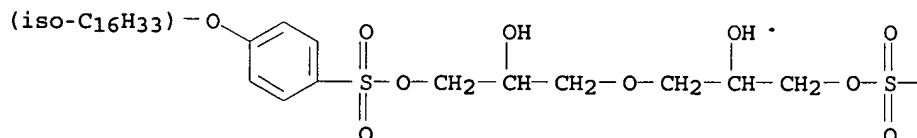
CN Hexitol, 1,4-anhydro-, 2,6-di-1-tetradecanesulfonate (9CI) (CA INDEX NAME)



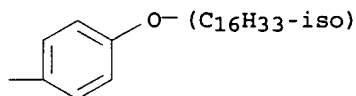
RN 176330-38-4 HCAPLUS

CN Benzenesulfonic acid, 4-(isohexadecyloxy)-, oxybis(2-hydroxy-3,1-propanediyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03C007-388  
 ICS G03C001-38; G03C001-815; G03C007-30  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)  
 IT 25151-96-6 71185-87-0, Hexaglyceryl tristearate 94710-97-1  
 157536-61-3 159540-86-0 159564-27-9 169970-92-7  
 176035-21-5 176035-22-6 176035-23-7  
 176035-24-8 176035-25-9 176035-26-0 176035-27-1 176035-28-2  
 176199-55-6 176298-01-4 176330-38-4 176330-39-5  
 176330-41-9 176330-42-0 176330-43-1  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (silver halide photog.  
 films contg.)

L20 ANSWER 20 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1995:383102 HCAPLUS  
 DOCUMENT NUMBER: 122:302893  
 TITLE: Silver halide photographic material and image  
 formation  
 INVENTOR(S): Nagashima, Toshiharu; Arai, Takeo  
 PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06313934	A2	19941108	JP 1993-102712	199304 28
<--				
PRIORITY APPLN. INFO.:			JP 1993-102712	199304 28
<--				

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The title photog. material, having  $\geq 1$  gelatin-contg. Ag halide emulsion layer on 1 side of a support, contains a tetrazonium compd. I [R<sub>1</sub>, R<sub>2</sub> = H, (substituted) alkyl, aryl, allyl, aralkyl, carbonyl, alkoxy, allyloxy, heterocycle; A = linking group with (m + 2) valences which is not  $\pi$ -electron-conjugated with the  $\pi$ -electron system of the tetrazonium cation; SOL<sub>1</sub>, SOL<sub>2</sub> = mono- or divalent hydrophilic group; m = 0-3; n = 0, 1, m  $\neq$  n  $\neq$  0; DEC = divalent linking group which cleaves in alk. developing solns.; B = linking group with (p + q + 1) valences; HARD = functional group capable of reacting with gelatin to combine; q = 0-3; ABS = functional group capable of adsorbing to Ag halide grains; p = 0-3; X- = inorg. or org. cation] in  $\geq 1$  of the

hydrophilic layers including the emulsion layer on the same side of the support. The material is developed with Ag image-forming developer with pH  $\geq 10$ . A photog. film using a Ag halide emulsion contg. II gave high contrast images with low formazan dye residual color, formazan scum stain, and uneven development.

IT 162549-90-8

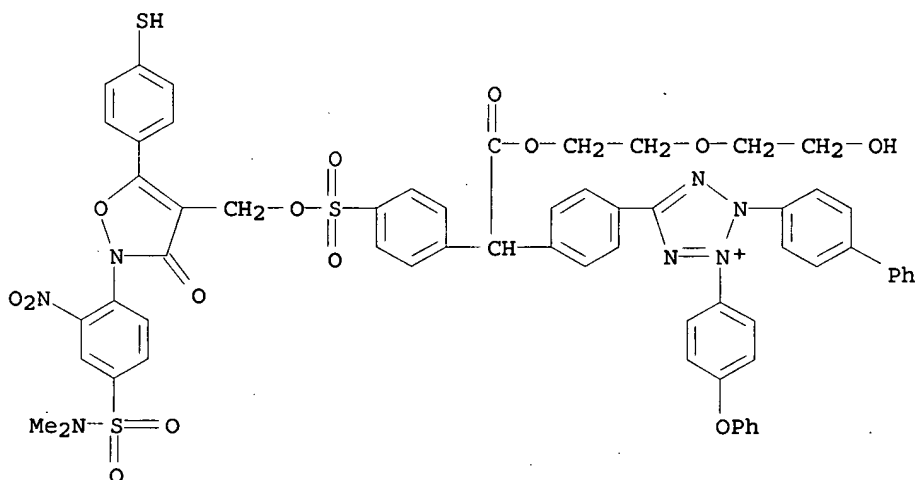
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(silver halide photog. film  
contg. tetrazonium compd.)

RN 162549-90-8 HCAPLUS

CN 2H-Tetrazolium, 2-[1,1'-biphenyl]-4-yl-5-[4-[1-[4-[[[2-[4-[(dimethylamino)sulfonyl]-2-nitrophenyl]-2,3-dihydro-5-(4-mercaptophenyl)-3-oxo-4-isoxazolyl]methoxy]sulfonyl]phenyl]-2-[2-(2-hydroxyethoxy)ethoxy]-2-oxoethyl]phenyl]-3-(4-phenoxyphenyl)-, chloride (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

● Cl<sup>-</sup>

IC ICM G03C001-06

ICS G03C005-29

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 162549-83-9 162549-85-1 162549-86-2 162549-87-3 162549-88-4

162549-89-5 162549-90-8 162549-91-9 162549-92-0

162549-93-1 162549-94-2 162549-95-3 162549-96-4 162549-97-5

162549-98-6 162549-99-7 162550-00-7 162550-01-8 162550-02-9

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(silver halide photog. film  
contg. tetrazonium compd.)

L20 ANSWER 21 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:31207 HCAPLUS

DOCUMENT NUMBER: 116:31207

TITLE: Antistatic layer for silver halide photographic film

INVENTOR(S): Sakata, Hideaki; Takamukai, Yasuhiko; Hanyu, Takeshi



PATENT ASSIGNEE(S): Konica Co., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02298940	A2	19901211	JP 1989-119587	198905 12

PRIORITY APPLN. INFO.: JP 1989-119587  
 198905  
 12

OTHER SOURCE(S): MARPAT 116:31207

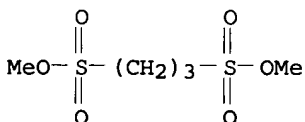
AB In the title layer contg. reaction products of an H<sub>2</sub>O-sol. conductive polymer, hydrophobic polymer particles, and a hardening agent, the hydrophobic polymer particles contain ≥1 of amino, epoxy, aziridine, active methylene, sulfone, aldehyde, vinylsulfone, block isocyanate, and N-methylol group and its deriv. and the hardening agent contains R1O3C(X1X3)LC(X2X4)SO3R2 (R1, R2 = C1-4 alkyl; X1-4 = H, C1-3 alkyl, halo; L = a bond, C1-4 alkyl, alkyleneoxy).

IT 6274-90-4

RL: USES (Uses)  
 (antistatic layer contg., for silver  
 halide photog. film)

RN 6274-90-4 HCAPLUS

CN 1,3-Propanedisulfonic acid, dimethyl ester (6CI, 9CI) (CA INDEX NAME)



IC ICM G03C001-85

ICS B32B007-02; B32B027-18; C08J007-04; C08L101-00; C09J007-02;  
 C09K003-16

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 6274-90-4 30999-44-1 61615-54-1 96361-50-1  
 120543-34-2 130341-38-7 134119-91-8 134269-88-8 134269-89-9  
 134269-90-2 134269-93-5

RL: USES (Uses)  
 (antistatic layer contg., for silver  
 halide photog. film)

L20 ANSWER 22 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:691008 HCAPLUS

DOCUMENT NUMBER: 115:291008

TITLE: Antistatic plastic layer of silver halide  
 photographic material

INVENTOR(S): Sakata, Hideaki; Takamukai, Yasuhiko; Hanyu,  
 Takeshi

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02298941	A2	19901211	JP 1989-119591	198905 12

PRIORITY APPLN. INFO.: <-- JP 1989-119591 198905  
12

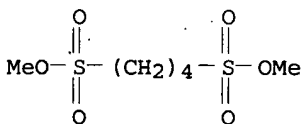
OTHER SOURCE(S): MARPAT 115:291008

AB In the title plastic film contg. reaction products of an aq. sol. conductive polymer, a hydrophobic polymer particles, and a hardening agent, the polymer particles contains sulfonate ester group or its salt, and the hardening agent contains R1O3C(X1X3)LC(X2X4)SO3R2 (R1 and R2 = C1-4 alkyl; X1-4 = H, C1-3 alkyl, halo; L = bond, C1-4 alkyl, alkyleneoxy).

IT 4239-21-8 6274-90-4  
 RL: USES (Uses)  
 (antistatic plastic layer contg., of silver halide photog. film)

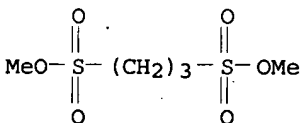
RN 4239-21-8 HCAPLUS

CN 1,4-Butanedisulfonic acid, dimethyl ester (6CI, 7CI, 9CI) (CA INDEX NAME)



RN 6274-90-4 HCAPLUS

CN 1,3-Propanedisulfonic acid, dimethyl ester (6CI, 9CI) (CA INDEX NAME)



IC ICM G03C001-85

ICS B32B007-02; B32B027-18; C08J007-04; C09K003-16

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 4239-21-8 6274-90-4 85967-82-4 120543-34-2  
 130341-38-7 134119-91-8 134119-93-0 134119-94-1 134437-70-0

RL: USES (Uses)  
 (antistatic plastic layer contg., of silver halide photog. film)

L20 ANSWER 23 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:618759 HCAPLUS

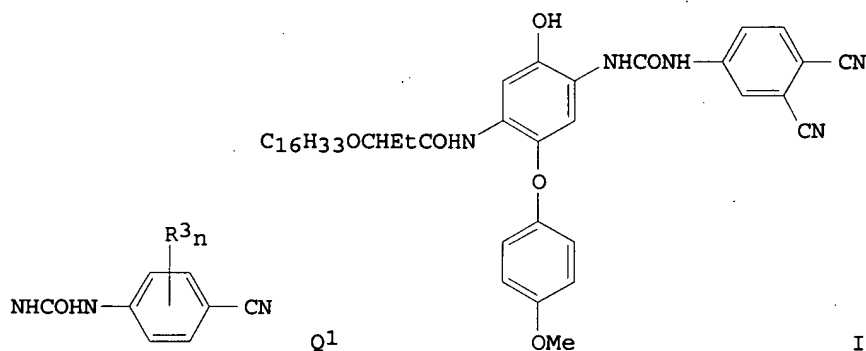
DOCUMENT NUMBER: 115:218759

TITLE: Silver halide color photographic emulsion  
 material containing ureido-substituted phenol

INVENTOR(S): cyan coupler  
 Nakayama, Noritaka; Masukawa, Toyoaki  
 PATENT ASSIGNEE(S): Konica Co., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03080245	A2	19910405	JP 1989-219175	198908 24
PRIORITY APPLN. INFO.: JP 1989-219175				198908 24

GI



AB The title material contains a phenol cyan coupler, which is 2-substituted with a ureido group Q1 and 5-substituted with R1Q2SO2R2CONH [Q2 = NR4, O; R1 = (cyclo)alkyl, aryl, heterocycle; R2 = alkylene; R3 = substituent; n = 1-4; R4 = H, alkyl, aryl, heterocycle]. Thus, a soln. of the title cyan coupler I in di-Bu phthalate and EtOAc contg. alkyl naphthalenesulfonate and gelatin was mixed with a red-sensitive AgBr emulsion then coated onto a polyester support to give a photog. film, which gave fog-free printed image with coloring property.

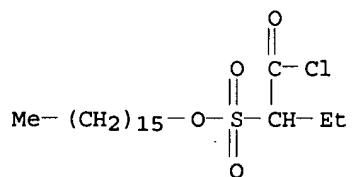
IT 124838-51-3

RL: USES (Uses)

(cyan coupler from, for silver halide  
 emulsion, prevention of fog in)

RN 124838-51-3 HCAPLUS

CN 2-Butanesulfonic acid, 1-chloro-1-oxo-, hexadecyl ester (9CI) (CA  
 INDEX NAME)



IT 136925-75-2 136925-77-4 136925-78-5

136960-89-9

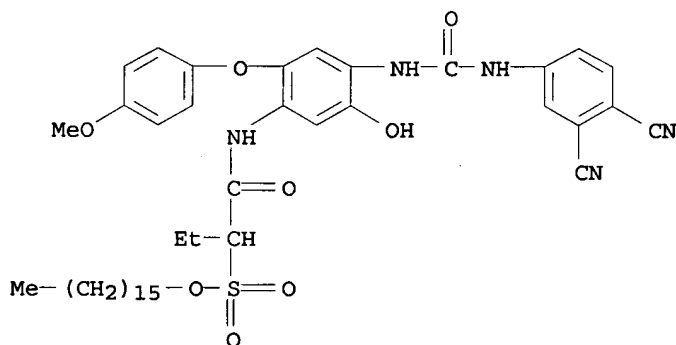
RL: USES (Uses)

(cyan coupler, for silver halide

photog. emulsion, prevention of fog in)

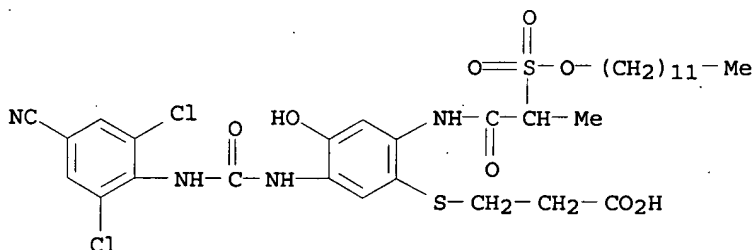
RN 136925-75-2 HCAPLUS

CN 2-Butanesulfonic acid, 1-[[4-[[[(3,4-dicyanophenyl)amino]carbonyl]amino]-5-hydroxy-2-(4-methoxyphenoxy)phenyl]amino]-1-oxo-, hexadecyl ester (9CI) (CA INDEX NAME)



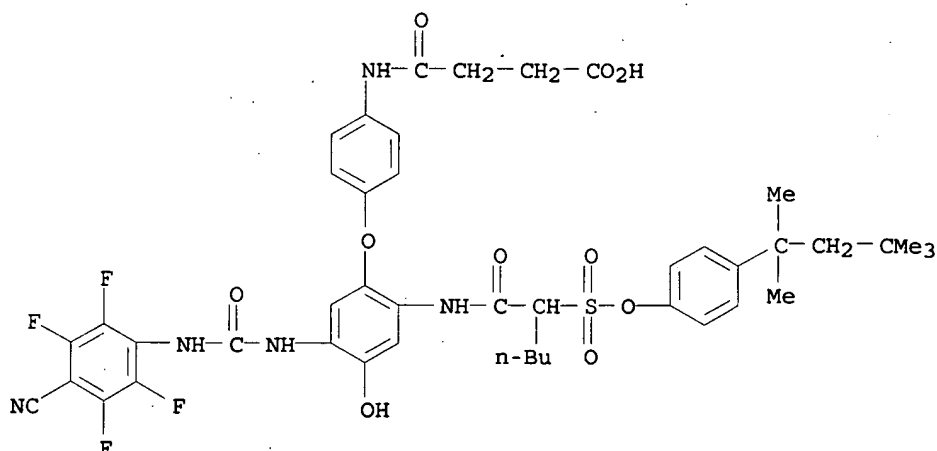
RN 136925-77-4 HCAPLUS

CN Propanoic acid, 3-[[5-[[[(2,6-dichloro-4-cyanophenyl)amino]carbonyl]amino]-2-[[2-[[dodecyloxy)sulfonyl]-1-oxopropyl]amino]-4-hydroxyphenyl]thio]- (9CI) (CA INDEX NAME)



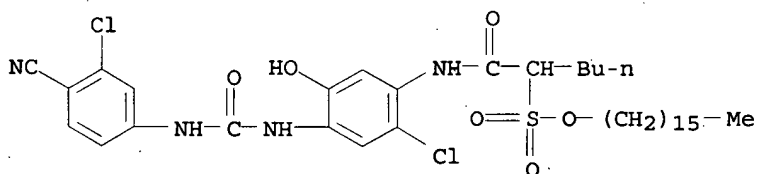
RN 136925-78-5 HCAPLUS

CN Butanoic acid, 4-[[4-[5-[[[(4-cyano-2,3,5,6-tetrafluorophenyl)amino]carbonyl]amino]-4-hydroxy-2-[[1-oxo-2-[[4-(1,1,3,3-tetramethylbutyl)phenoxy)sulfonyl]hexyl]amino]phenoxy]phenyl]amino]-4-oxo- (9CI) (CA INDEX NAME)



RN 136960-89-9 HCAPLUS

CN 2-Hexanesulfonic acid, 1-[[[2-chloro-4-[[[(3-chloro-4-cyanophenyl)amino]carbonyl]amino]-5-hydroxyphenyl]amino]-1-oxo-, hexadecyl ester (9CI) (CA INDEX NAME)



IC ICM G03C007-36

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 124838-51-3 136925-79-6

RL: USES (Uses)

(cyan coupler from, for silver halide emulsion, prevention of fog in)

IT 136925-75-2 136925-76-3 136925-77-4

136925-78-5 136960-89-9

RL: USES (Uses)

(cyan coupler, for silver halide photog. emulsion, prevention of fog in)

L20 ANSWER 24 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:618758 HCAPLUS

DOCUMENT NUMBER: 115:218758

TITLE: Silver halide color photographic emulsion material containing ureido-substituted phenol cyan coupler

INVENTOR(S): Nakayama, Noritaka; Masukawa, Toyooki

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 03080244

A2

19910405

JP 1989-219170

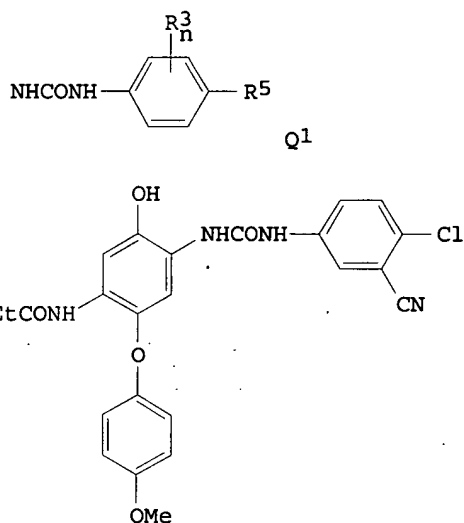
198908  
24

PRIORITY APPLN. INFO.:

<--  
JP 1989-219170198908  
24

GI

&lt;--



AB The title material contains a phenol cyan coupler, which is 2-substituted with a ureido group Q1 and 5-substituted with R1Q2SO2R2CONH [Q2 = NR4, O; R1 = (cyclo)alkyl, aryl, heterocycle; R2 = alkylene; R3 = H, substituent; n = 1-4; R4 = H, alkyl, aryl, heterocycle; R5 = H, substituent except CN]. Thus, a soln. of the title cyan coupler I in di-Bu phthalate and EtOAc contg. alkyl naphthalenesulfonate and gelatin was mixed with a red-sensitive AgBr emulsion then coated onto a polyester support to give a photog. film, which gave fog-free printed image with coloring property.

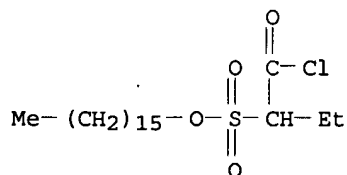
IT 124838-51-3

RL: USES (Uses)

(cyan coupler from, for silver halide emulsion, prevention of fog in)

RN 124838-51-3 HCAPLUS

CN 2-Butanesulfonic acid, 1-chloro-1-oxo-, hexadecyl ester (9CI) (CA INDEX NAME)



IT 136925-80-9 136925-81-0 136925-82-1

136925-85-4 136960-90-2

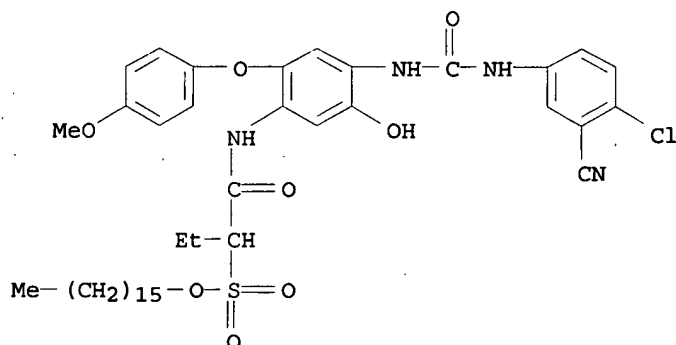
RL: USES (Uses)

(cyan coupler, for silver halide

photog. emulsion, prevention of fog in)

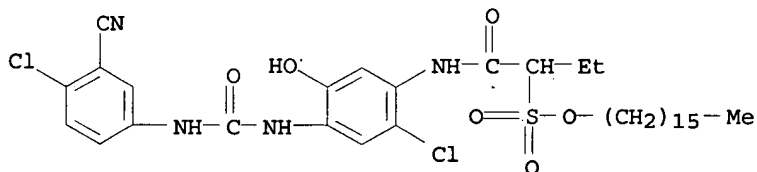
RN 136925-80-9 HCAPLUS

CN 2-Butanesulfonic acid, 1-[[4-[[[(4-chloro-3-cyanophenyl)amino]carbonyl]amino]-5-hydroxy-2-(4-methoxyphenoxy)phenyl]amino]-1-oxo-, hexadecyl ester (9CI) (CA INDEX NAME)



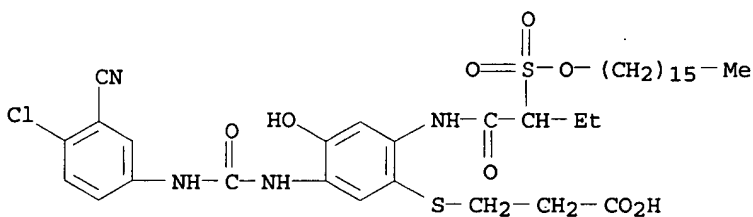
RN 136925-81-0 HCAPLUS

CN 2-Butanesulfonic acid, 1-[[2-chloro-4-[[[(4-chloro-3-cyanophenyl)amino]carbonyl]amino]-5-hydroxyphenyl]amino]-1-oxo-, hexadecyl ester (9CI) (CA INDEX NAME)



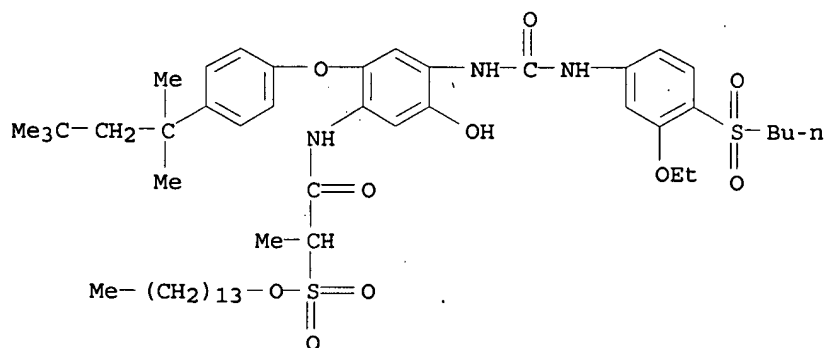
RN 136925-82-1 HCAPLUS

CN Propanoic acid, 3-[[5-[[[(4-chloro-3-cyanophenyl)amino]carbonyl]amino]-2-[[2-[(hexadecyloxy)sulfonyl]-1-oxobutyl]amino]-4-hydroxyphenyl]thio]- (9CI) (CA INDEX NAME)

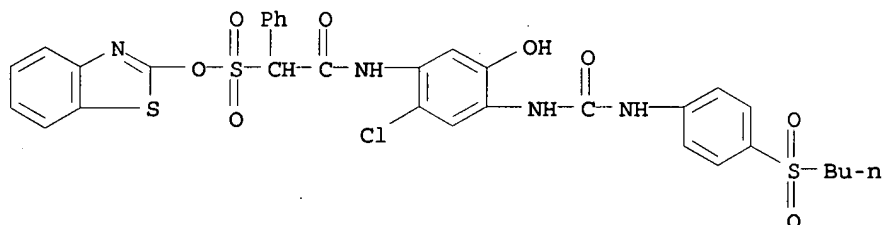


RN 136925-85-4 HCAPLUS

CN 2-Propanesulfonic acid, 1-[[4-[[[(4-(butylsulfonyl)-3-ethoxyphenyl)amino]carbonyl]amino]-5-hydroxy-2-[4-(1,1,3,3-tetramethylbutyl)phenoxy]phenyl]amino]-1-oxo-, tetradecyl ester (9CI) (CA INDEX NAME)



RN 136960-90-2 HCAPLUS  
 CN Benzenemethanesulfonic acid,  $\alpha$ -[[[4-[[[4-(butylsulfonyl)phenyl]amino]carbonyl]amino]-2-chloro-5-hydroxyphenyl]amino]carbonyl]-, 2-benzothiazolyl ester (9CI) (CA INDEX NAME)



IC ICM G03C007-34  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT 124838-51-3 136925-87-6  
 RL: USES (Uses)  
 (cyan coupler from, for **silver halide emulsion**, prevention of fog in)  
 IT 136925-80-9 136925-81-0 136925-82-1  
 136925-83-2 136925-84-3 136925-85-4 136925-86-5  
 136960-90-2  
 RL: USES (Uses)  
 (cyan coupler, for **silver halide photog. emulsion**, prevention of fog in)  
 L20 ANSWER 25 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1991:72267 HCAPLUS  
 DOCUMENT NUMBER: 114:72267  
 TITLE: Prevention of discoloration for organic colorant by using thioanthrene  
 INVENTOR(S): Sugita, Shuichi; Mizukura, Noboru; Kaneko, Yutaka  
 PATENT ASSIGNEE(S): Konica Co., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 02196239

A2

19900802

JP 1989-16856

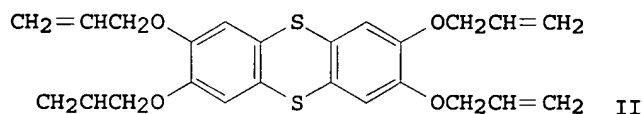
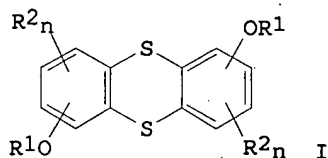
198901  
25

PRIORITY APPLN. INFO.:

JP 1989-16856

198901  
25

GI



AB An org. colorant contg.  $\geq 1$  thioanthrenes I (R<sub>1</sub> = H, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, heterocycle, acyl, sulfonyl, phosphonyl, carbamoyl, sulfamoyl, oxycarbonyl; R<sub>2</sub> = substituent which may be the same as R<sub>1</sub>; R<sub>1</sub>O and R<sub>2</sub> may form 5-7-member ring; n = 0-3) is under prevention of discoloration. Thus, 3,4-dimethoxyphenylsulfonyl chloride was treated in H<sub>2</sub>O and CHCl<sub>3</sub> in the presence of Zn to give a thianthrene deriv. II. A color Ag halide photog. emulsion contg. II showed light resistance.

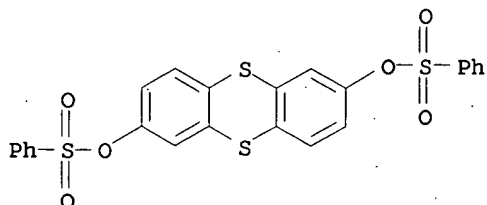
IT 131667-30-6

RL: USES (Uses)

(discoloration prevention by, for org. colorant, for  
silver halide photog.  
emulsion)

RN 131667-30-6 HCAPLUS

CN 2,7-Thianthrenediol, dibenzenesulfonate (9CI) (CA INDEX NAME)



IC ICM G03C007-392

ICS C09D011-00; C09D011-02; C09K003-00; G03C007-26

ICA C07D339-08; C07D409-14; C07D495-14

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 131667-25-9 131667-26-0 131667-27-1 131667-28-2 131667-29-3

131667-30-6 131667-31-7 131667-32-8

RL: USES (Uses)

(discoloration prevention by, for org. colorant, for  
silver halide photog.  
emulsion)

L20 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1990:108470 HCAPLUS  
 DOCUMENT NUMBER: 112:108470  
 TITLE: Manufacture of silver halide photographic emulsion containing nitrogen heterocycle thioether  
 INVENTOR(S): Morimoto, Kiyoshi; Mifune, Hiroyuki  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

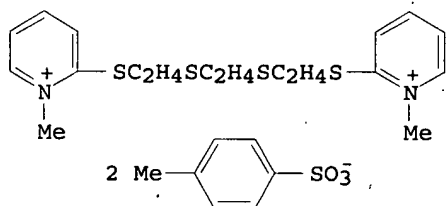
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01216338	A2	19890830	JP 1988-41275	19880224

PRIORITY APPLN. INFO.:

<--  
 JP 1988-41275

198802  
 24

GI



AB The title material contg.  $A1SnR1(SR2)mSoA2$  2X- [ $R1-2 = C1-5$  alkylene;  $A1-2 =$  (satd.) heterocycle contg. N in which  $\geq 1$  N are quaternized;  $m = 2-5$ ;  $n, o = 0, 1$ ] is prepd. Thus, a compn. comprising an Ag(Br,I) emulsion,  $Na_2S_2O_3$ , thioether I, a stabilizer, a hardener, and a coating aid was extrusion-molded with a protecting layer onto a cellulose triacetate film to give a photog. material giving an image with reduced photog. fog.

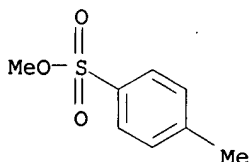
IT 80-48-8

RL: USES (Uses)

(thioether from, for silver halide  
 photog. emulsion, with reduced photog.  
 fog)

RN 80-48-8 HCAPLUS

CN Benzenesulfonic acid, 4-methyl-, methyl ester (9CI) (CA INDEX NAME)



IC ICM G03C001-02

$$\text{C}_6\text{H}_{11}\text{SO}_2\text{CH}_2(\text{CF}_2)_9\text{CHF}_2$$

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

PATENT ASSIGNEE(S): Eastman Kodak Co., USA  
 SOURCE: Eur. Pat. Appl., 29 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 121326	A2	19841010	EP 1984-301326	19840301
EP 121326	A3	19870114		
EP 121326	B1	19890517		
R: DE, FR, GB				
US 4490463	A	19841225	US 1983-471615	19830303
CA 1189071	A1	19850618	CA 1983-426792	19830427
US 104601	H	19840904	US 1984-570147	19840112
JP 59187060	A2	19841024	JP 1984-38906	19840302
JP 04042429	B4	19920713		
PRIORITY APPLN. INFO.:			US 1983-471615	A 19830303

GI For diagram(s), see printed CA Issue.  
 AB Title dyes (I) are prepd., where R = H or C1-4 alkyl free of substituents in the  $\alpha$  and  $\beta$  positions, X = C1-5 alkanediyl, and X1 and X2 represent the atoms necessary to complete a benzimidazole nucleus at least one of which is substituted with an electron-withdrawing group. I are blue sensitizers for Ag halide emulsions and photog. elements.  
 Thus, reaction of 4,5,2-Cl<sub>2</sub>(O<sub>2</sub>N)C<sub>6</sub>H<sub>2</sub>NH<sub>2</sub> [6641-64-1] with CH<sub>2</sub>(COCl)<sub>2</sub>, redn. and ring closure of the resultant amide [93912-78-8] with SnCl<sub>2</sub> and acid to form 2,2'-methanediylbis(5,6-dichlorobenzimidazole) (II) [93912-66-4], treatment of II with NaH followed by p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>O<sub>3</sub>SC<sub>6</sub>H<sub>4</sub>Me-p [6315-52-2] to give the ethanediyl-bridged deriv. (III) [93912-79-9], and treatment of III with p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>Et followed by NaI gave 26% IV [93912-80-2] with  $\lambda_{\max}$  401 nm (MeOH),  $\epsilon_{\max}$  12.4 + 104. Other I were similarly prepd. Testing of one of the sensitizers in a Ag halide emulsion was described in a detailed example.  
 IC C09B023-04; G03C001-26  
 CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)  
 Section cross-reference(s): 74

L20 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1979:440914 HCAPLUS  
 DOCUMENT NUMBER: 91:40914  
 TITLE: Chromium complex-azomethine dyes

INVENTOR(S): Idelson, Elbert Martin  
 PATENT ASSIGNEE(S): Polaroid Corp., USA  
 SOURCE: Ger. Offen., 61 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2841705	A1	19790405	DE 1978-2841705	197809 25
DE 2841705	C2	19890316	<--	
US 4166741	A	19790904	US 1977-836078	197709 23
GB 2005293	A	19790419	GB 1978-37829	197809 22
GB 2005293	B2	19820630	<--	
FR 2404247	A1	19790420	FR 1978-27301	197809 22
FR 2404247	B1	19810130	<--	
CA 1104577	A1	19810707	CA 1978-311911	197809 22
JP 54066839	A2	19790529	JP 1978-117800	197809 25
JP 59008814	B4	19840227	<--	
US 4231950	A	19801104	US 1979-23264	197903 23
JP 58091766	A2	19830531	JP 1982-188890	198210 27
JP 59008815	B4	19840227	<--	
PRIORITY APPLN. INFO.:			US 1977-836078	A 197709 23
GI			<--	

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Yellow Cr complex dye developers (I; R = mol. which can fill the coordination sphere of Cr; n = 1-8; m = 1-2; x = + or - charge depending on R) were prepd. and used in diffusion-transfer Ag halide emulsions giving dyes with improved color stability. Thus, 3-[2,5-bis(methoxycarbonyloxy)phenyl]propyl p-toluenesulfonate [

70569-36-7] was treated with Cu(II) bis(2,4-dihydroxybenzaldehyde) [24322-30-3] in the presence of NaH to give 2-hydroxy-4-[3-[2,5-bis(methoxycarbonyloxy)]propoxy]benzaldehyde [70569-37-8], the benzaldehyde deriv. reacted with 2-amino-4-nitrophenol [99-57-0], and the resulting azomethine [70569-38-9] treated with Cr(OAc)<sub>2</sub> to give II [70572-07-5], which showed improved color stability towards light.

IC G03C005-54; G03C005-30; C09B055-00

CC 40-12 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

L20 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1978:571823 HCAPLUS

DOCUMENT NUMBER: 89:171823

TITLE: Silver halide color photographic materials

INVENTOR(S): Wada, Hajime; Endo, Takaya; Kikuchi, Shoji; Ishikawa, Hisashi; Ninomiya, Hidetaka

PATENT ASSIGNEE(S): Konishiroku Photo Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 53060627	A2	19780531	JP 1976-135895	19761112
JP 55036137	B4	19800918	JP 1976-135895	19761112

PRIORITY APPLN. INFO.: A

GI For diagram(s), see printed CA Issue.

AB Ag halide color photog. materials have a red-sensitive emulsion layer contg. a colorless 4-equiv. 2-naphthamide cyan coupler and a colored cyan coupler of the general formula I (R = H, C1-6 alkyl; R1, R2 = C2-6 alkyl; R3 = C1-4 alkyl; M = cation; Z = O2CNR4Z1, OCR5R6COZ1, OCR7R8CONR9Z1, O3SZ1, OCR10R11CO2Z1, OCO2Z1, OZ2Z1, II; R4, R5, R6, R7, R8, R9, R10, R11 = H, monovalent org. moiety; Z1 = divalent org. moiety; Z2 = alkylene, haloalkylene, alkylalkylene; Z3 = group of atoms required to complete a nonarom. C ring or heterocyclic ring). The colored couplers I exhibit excellent color-correction effects without decreasing the sensitivity of the material and also have a good coupling speed. The colored couplers also provide a flat masking effect even when only relatively small amts. of the couplers are used. Thus, a mixt. of colorless cyan coupler III 96.7 and colored cyan coupler IV 3.3 mol% were dissolved in an EtOAc-di-Bu phthalate mixt., the soln. was dispersed in an aq. gelatin soln., the dispersion was added to a Ag(Br,I) emulsion, and coated on a photog. film support. The film was then sensitometrically exposed and developed to give a relative sensitivity, fog, Dmax, λmax, and DG of 128, 0.14, 2.38, 575 nm, and 0.33, resp., vs. 114, 0.20, 2.29, 575 nm, and 0.26, resp., for a control with V instead of of IV.

IT 67951-49-9

RL: USES (Uses)

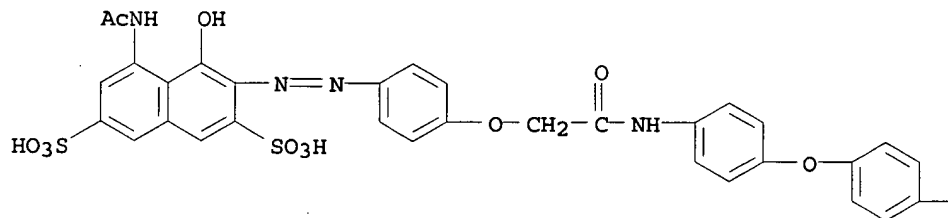
(colored photog. cyan coupler, for color corrections in silver halide photog. emulsions)

RN 67951-49-9 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 5-(acetylamino)-3-[[4-[2-[[4-[4-[[5-[[2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-1-oxobutyl]amino]-3-chloro-

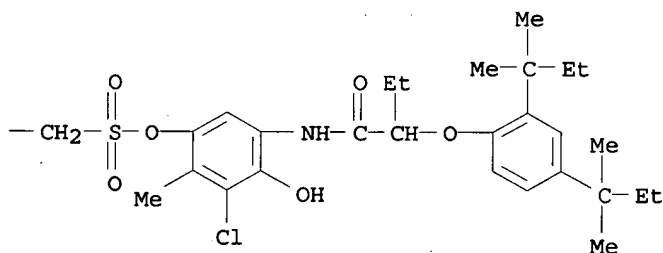
4-hydroxy-2-methylphenoxy]sulfonyl]methyl]phenoxy]phenyl]amino]-2-oxoethoxy]phenyl]azo]-4-hydroxy-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●2 Na

PAGE 1-B



IC G03C007-34  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
 IT 66461-34-5 66461-35-6 67951-48-8 67951-49-9  
 RL: USES (Uses)  
 (colored photog. cyan coupler, for color corrections in silver halide photog. emulsions)

L20 ANSWER 31 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1976:485521 HCAPLUS  
 DOCUMENT NUMBER: 85:85521  
 TITLE: Direct-positive silver halide photographic emulsions  
 INVENTOR(S): Fischer, Leewellyn C.; Hunt, Heman Dowd  
 PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA  
 SOURCE: U.S., 5 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3933498	A	19760120	US 1973-403263	197309 28

PRIORITY APPLN. INFO.:

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US 1973-403263	A	197309 28
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AB A direct-pos. Ag halide photog. emulsion based on the Herschel effect contains a desensitizing dye, a heterocyclic compd., such as a benzotriazole deriv., as a bleach inhibitor and another heterocyclic compd., such as a pyridine deriv., a indazole deriv., a thiazole deriv. and a benzoimidazole deriv., as a Dmin maintainer. The photog. emulsion may be fogged just before the addn. of the desensitizing dye. The combined use of the Dmin maintainer which inhibits the residual latent image formation and the bleach inhibitor which retards bleaching of fogging nuclei by short wavelength radiation ( $\leq 530$  nm) permits handling of such a direct-pos. emulsion in room light without undue deleterious effect on image contrast. Thus, 1-phenyl-5-mercaptotetrazole 5 mg was added to a AgCl emulsion (contg. Ag 0.15 mole) 0.6 kg, the pH was adjusted to 8, the emulsion was heated to 55°, HCHO 0.75 g was added, the emulsion was held at 55° for 20 min, cooled, and the pH was adjusted to 5.5. N-methyl-4-(m-nitrostyryl)cinnolinium p-toluenesulfonate 40, 5-nitrobenzotriazole (I) 15, and 2-amino-5-nitropyridine (II) 200 mg were added to the emulsion, the emulsion was coated on a poly(ethylene terephthalate) support, dried, exposed through a combination of a  $\sqrt{2}$  photog. step tablet and an amber **sheet** transmitting radiation  $>530$  nm to 100 lx light flux from a Xe arc, exposed to a daylight-type fluorescent lamp (40 W) at 50 ft-candle for 5 min, developed in a hydroquinone developer and fixed to give a direct-pos. image Dmax 3.05 and Dmin 0.04 and 2.50 and 0.04, resp., after exposure to the room light vs. 3.00 and 0.04 and 0.30 and 0.30, resp., for a control emulsion contg. no I and II.

IT 60246-15-3

RL: USES (Uses)

(photog. desensitizer, for direct-pos. **silver**  
**halide emulsions**)

RN 60246-15-3 HCAPLUS

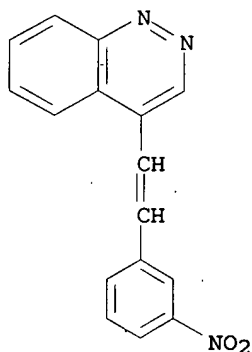
CN Benzenesulfonic acid, 4-methyl-, methyl ester, compd. with  
4-[2-(3-nitrophenyl)ethenyl]cinnoline (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 60246-14-2

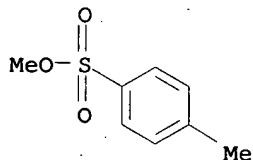
CMF C16 H11 N3 O2





CM 2

CRN 80-48-8  
CMF C8 H10 O3 S



IC G03C  
INCL 096064000  
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
IT 81-93-6 1335-77-9 29770-17-0 60090-54-2 60090-56-4  
60246-15-3  
RL: USES (Uses)  
(**photog.** desensitizer, for direct-pos. **silver** halide emulsions)

L20 ANSWER 32 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1972:128840 HCAPLUS  
DOCUMENT NUMBER: 76:128840  
TITLE: Perfluoroalkanesulfonate group-diffusion stabilized color couplers  
INVENTOR(S): Skoog, Ivan H.  
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co.  
SOURCE: Ger. Offen., 19 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2128830	A	19720113	DE 1971-2128830	19710609
US 3681076	A	19720801	US 1970-45203	19700610

FR 2096101 A5 19720211 FR 1971-20845  
197106  
09

GB 1324567 A 19730725 GB 1971-19773  
197106  
09

CA 941371 A1 19740205 CA 1971-115248  
197106  
09

PRIORITY APPLN. INFO.: US 1970-45203 A  
197006  
10

AB The title color couplers (I, R = BzCH<sub>2</sub> or 1-hydroxy-2-naphthyl in para or meta position; n = 3 or 7) were prep'd. and used in silver halide emulsions. Thus, F3C(CH<sub>2</sub>)<sub>3</sub>SO<sub>2</sub>F was added to a mixt. of p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>OH, pyridine, and Et<sub>3</sub>N to give p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>O<sub>3</sub>S(CF<sub>3</sub>)<sub>3</sub>, which was reduced with Fe-HCl and treated with BzCH<sub>2</sub>CO<sub>2</sub>Et in xylene to give 4-(2-benzoylaceto)phenyl perfluorobutanesulfonate (I, R = BzCH<sub>2</sub> in para position, n = 3) [34570-41-7]. Three other I were similarly prep'd.

IC G03C

CC 40 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

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